

AMERICAN *Bee* JOURNAL

ABJ

June

1954

Vol. 94

No. 6



3 **BIG** REASONS



why LEWIS-DADANT PRODUCTS
ARE BETTER!

- **EXPOSED PARTS ROT-PROOFED** to give termite-free, weather-resistant, longer-lasting equipment.
- **DOVETAILS ARE BORED FOR NAILING** to eliminate splitting and for ease of assembly.
- **V-SHAPED FRAME RESTS** give solid support and are easier to clean.

LEWIS-DADANT Beeware Products . . . perfect companions for increased production . . . available through your neighborhood Lewis-Dadant Dealer.

G. B. Lewis Company

Watertown, Wisconsin

LEWIS-DADANT BRANCHES

Stephenson Ave. at 14th St.
Lynchburg, Virginia

Colonie & Montgomery Sts.
Albany 1, New York

1010 W. Austin St.
Paris, Texas

92 Riverside Street
Chillicothe, Ohio

Route 41, South
Hahira, Georgia

STOLLER'S

FRAMESPACERS

The finest thing ever offered beekeepers.
See your dealer or write.

STOLLER HONEY FARMS

Latty, Ohio

SPEARS' QUALITY BRED ITALIAN QUEENS

If it's quality you are looking for—
and who isn't—you can stop looking.
You will find it in our Quality Bred
Italian Queens. Bred for color, quiet-
ness, and productivity.

Prices through June, July, August
and September.

50c each—air mail. Any quantity.
SPEARS' APIARIES, Simmesport, La.

Italian Queens

\$1.00 each - Air Mail

Package Bees at May Prices.

W. E. PLANT

Rt. 2, Hattiesburg, Miss.

THRIFTY QUEENS

THREE-BANDED ITALIANS ONLY

Lots of 100 \$55.00

Smaller lots, each .65

REMEMBER—Thrifty Bees are
guaranteed to please.

W. J. Forehand & Sons

Fort Deposit, Ala.
Breeders Since 1922.

QUEENS QUEENS

Airmail — 55c
For Quality and Service.
Guaranteed Live Delivery.

Wilkes Apiaries
Hamburg, La.

FREE...

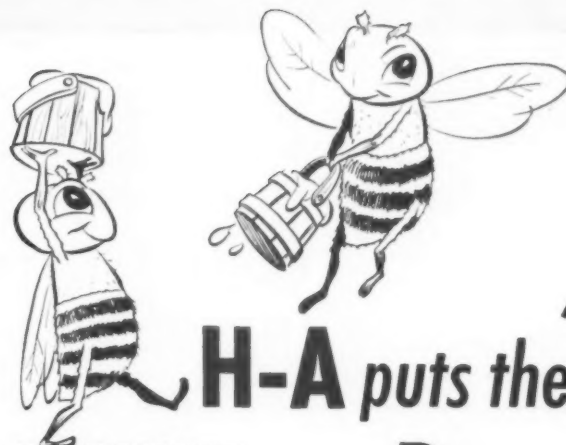
A Sample Copy

"Gleanings in Bee Culture"

LOOK IT OVER

YOU WILL LIKE IT
A. I. ROOT CO., Medina, Ohio

RENEW YOUR SUBSCRIPTION



**H-A puts the Bee
in Business...**

Your Honey's Good...

**H-A Honey Jars
Will Sell It.**



SUMMER PRICES

First Quality Italian Bees and Queens

2-lb. Packages with Queens	\$2.00 any number
3-lb. Packages with Queens	2.50 any number
4-lb. Packages with Queen	3.00 any number
Untested Queens	.50 any number
Tested Queens	1.00 each

Merrill's Bees and Queens are backed with our 100% satisfaction guarantee.
Bees F.O.B. Queens mailed and clipped on request.

Merrill Bee Company

State Line, Miss.

Use ABJ Labels — They Get Results



THE AMERICAN BEE JOURNAL

Vol. 94, No. 6

HAMILTON, ILLINOIS

June, 1954

Editor — G. H. Cale

Associate Editors — M. G. Dadant, Roy A. Grout

Managing Editor — Adelaide Larson

Published monthly at Hamilton, Illinois. Entered as second-class matter at the Post Office, Hamilton, Illinois. In the United States, Canada and Mexico, \$2.00 a year; two years \$3.50; three years \$5.00. Foreign \$2.50 a year; two years \$4.50; three years \$6.50. Subscription stopped at expiration date printed on wrapper. Available on microfilm at moderate prices by writing to University Microfilms, Ann Arbor, Michigan.

Contents

All Around the Bee Yard—G. H. Cale	212
As We See It	214
Panel for June—The Value of Planning and Records in Outyard Management	216
Apiary Locations—R. J. Walstrom	220
The Follower Board—Carl E. Killion	222
Moving Hives on Pallets—J. E. Eckert	223
Bee-Tight Honey House Doors—Charley W. Moosman	226
Abroad	228
June for the Beginner—Frank E. McLaughlin	229
From Here and There	231
Let's Get Together	236
Crops and Markets—M. G. Dadant	240

QUEENS ITALIANS

QUEENS CAUCASIANS

Lots of good young queens ready to mail. Rush orders handled with utmost speed. We can still supply you with regular and queenless booster packages promptly.

PRICES AFTER MAY 20th

Lots of	Queens	2-lb. & Queen	3-lb. & Queen	4-lb. & Queen	5-lb. & Queen
1 - 24	\$.75	\$3.10	\$4.00	\$4.90	\$5.80
25 - 99	.70	2.90	3.75	4.60	5.50
100-499	.65	2.70	3.50	4.30	5.10

Tested Queens, \$1.50 each

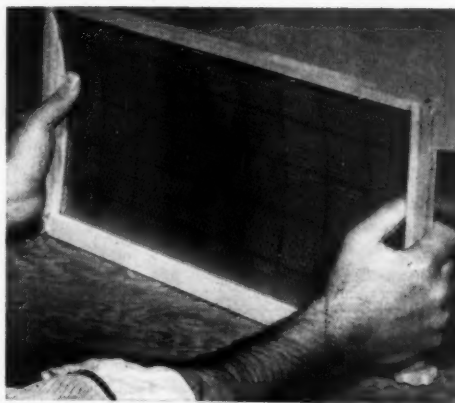
*Queens Postpaid-Air Mailed or Clipped at no extra cost.

For Queenless package deduct price of Queen
Packages F. O. B. Shipping Point

THE STOVER APIARIES

Mayhew, Miss.

GILT-EDGE FOUNDATION



Modern Magic — You can assemble frame and foundation in less than a minute, with no wiring or embedding to do. When you use the new Lewis Nailless Topbar Frame and slip a sheet of Dadant's Gilt-Edge Foundation in, there you are! Only two nails to use; no frame wiring to do; no wax embedding to do.

DADANT & SONS, INC.

Hamilton, Ill.

Dealers Everywhere

OUR COVER PICTURE

Let's hope only a few swarms like this occur in our yards. But, if they do, it would be nice and handy to have them cluster as this one has, easy to reach. The picture is from Albert J. Kopec, Los Angeles, California. He says, "the largest swarm I ever saw, measuring sixty inches in diameter, filled six bodies, resulting in six new colonies of bees. I put the two hives on the ground just to show the size of the swarm."



Ad Index

Adelhardt, George	212	Forehand & Sons, W. J.	207	Newton Bee Co.	212
Apppler Co., C. W.	238	Foster Apiaries	241	Nichols Apiaries	241
Afcollite Corp.	234	Garon Bee Co.	215	Plant, W. E.	207
American Bee Journal	234	Girardeau Apiaries	239	Reams, W. D.	234
American Rabbit Journal	241	Hale Co., A. H.	241	Rich Honey Farms	210
Anderson, O. K.	234	Hanson, Hall Bee Co.	234	Ronlake's Machine Shop	211
Arnouville, Johnnie	212	Harper, Carlus T.	239	Root Co., A. I.	207, Back cover
Arnouville, Oscar	241	Hazel-Atlas Glass Co.	207	Rossman Apiaries	210
Australasian Beekeeper	239	Homan, Farris	215	Shackelford, John S.	234
Autauga Bee Farm	215	Honey Hoffman	211	Sioux Honey Assn.	242
Bee World	242	Honey Sales Co.	234	Spears' Apiaries	207
Berry & Son, M. C.	235	Hutchison Mfg. Co.	242	Stoller Honey Farms	207
Bessonnet Bee Co.	215	Jackson Apiaries	215	Stover Apiaries	208
BLM Manufacturing Co.	241	Jensen's Apiaries	213	Sunkist Bee Co.	211
Blue Bonnet Apiaries	215	Johnson Co., Carl E.	215	Sunrise Apiaries	211
Bolling Bee Co.	242	Kelley Co., Walter T.	209	Taylor Apiaries	241
Bordelon Apiaries, E. J.	241	Koehnen & Sons, C. F.	241	Victor Apiaries	242
British Bee Journal	212	Leahy Mfg. Co.	213	Walker, Eugene	242
Brunson, H. C.	242	Lewis Co., G. B.	242	Weaver Apiaries	242
Burleson & Son, T. W.	239	Little's Apiaries	241	Weaver, Howard	241
Calvert Apiaries	242	Lotz Co., August	235	West, M. C.	241
Canadian Bee Journal	241	Lucedale Apiaries	211	White Pine Bee Farms	215
Caucasian Apiaries	211	McCord Mfg. Co.	234	Wicht Apiaries	242
Chrysler & Son, W. A.	212	Maendel, John J.	211	Wilbanks Apiaries	215
Country Book Store	239	Marshfield Mfg. Co.	210	Wilkes Apiaries	207
Cutts & Sons, J. M.	234	Merrill Bee Co.	207	Williams Apiaries, Dr.	241
Dadant & Sons, Inc.	208, 210, 213, 235, Inside back cover	Miller, John G.	239	Williams Bros. Mfg. Co.	241
Davis, Thomas S.	215	Miller's Honey Co.	242	Wing & Sons, J. E.	241
Ellison & Sons, C. G.	215	Mitchell's Apiaries	242	Winslett, D. T.	234
Flowers Bee Company	241	Modern Beekeeping	239	Woodman Co., A. G.	213
		Muth Co., F. W.	215	York Bee Co.	209

YORK'S QUALITY BRED QUEENS

Two Strains

*Queens Bred Up to a Quality
Not Down to a Price*

York's Italians		Dadant's Starlines	
1-24	\$1.00	1-24	\$1.40
25-99	.85	25-99	1.30
100 up	.75	100 up	1.20



Reg. U.S.
Pat. Off.

The Preference of Leading Honey Producers

YORK BEE COMPANY

Jesup, Georgia
(The Universal Apiaries)

QUEENS

When You Want
QUALITY at LOW COST
Look For This Sign



Trade Mk. Reg.
U. S. Pat. Off.

KELLEY—"The Bee Man"

KELLEY ISLAND stock queens grown on our own bee farm and rushed out daily from Clarkson by air mail. We now have thousands of extra queens so try us on your rush orders.

1-24 75c each prepaid air mail
25 and up .. 65c each prepaid air mail

WALTER T. KELLEY CO.

Clarkson, Kentucky

Attention:

By agreement and co-operation with the Honey Bee Improvement Assn. we have been supplied stock for drones used in producing queens for

4-WAY ISLAND HYBRID BEES

Do not be misled. Any other Kelleys Island or Island Hybrid queens are not mated to the Island Hybrid drones to give proper mating to produce 4-Way bees.

Bees developed on Kelleys Island have been known for more than a year now as Island Hybrids.

DO NOT BE MISLED

Prices after May 20th.

	4-Way Island Hybrids	Rossman Stock
1 to 25	\$1.25 each	\$1.00 each
26 or more	1.15 each	.90 each

Package prices 25c each less than present prices.

ROSSMAN APIARIES

P. O. Box 133

Moultrie, Ga.

RICH'S LEATHER ITALIAN QUEENS and BEES

You can't go wrong starting the season with RICH queens. This is our own strain produced for our own honey production. You will get more honey at less cost than with other strains.

Packages with Rich Queens

	2-Lb.	3-Lb.	4-Lb.
1-24	\$3.50	\$4.50	\$5.50
25-99	3.25	4.25	5.25
100 Up	3.00	4.00	5.00

Rich Queens

1-24	\$1.20
25-99	1.10
100 Up	1.00

RICH HONEY FARMS

Jeanerette, Louisiana

For Progressive Beekeepers Only

Parity now belongs to the past—The progressive beekeeper will turn to comb honey production for bigger profits—Sell your honey direct from the hive—A ready market for your section honey at attractive prices.

For 100 Sections or a Carload

Send Your Order to

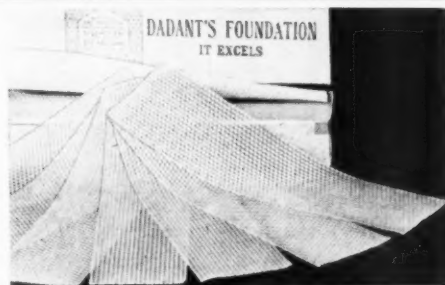
MARSHFIELD MFG. COMPANY, INC.

MARSHFIELD, WISCONSIN

Made in Marshfield

Sold to You Direct

(See our new 1954 catalog)



Dadant's Foundation for Bulk Comb Honey

For bulk comb honey for glass containers and for cut comb honey for cellophane wrappers or cartons. This is a special, light colored foundation, somewhat heavier than thin super, but lower in price. Bulk comb honey packed in glass must be white and beautiful, and it must be surrounded with an equally fine grade of liquid honey. Then you have beautiful packages that customers just want to buy.

DADANT & SONS, Inc.

Hamilton, Illinois

LEWIS-DADANT BRANCHES

Stephenson Ave. at 14th St.	1010 W. Austin St.
Lynchburg, Virginia	Paris, Texas
Colony & Montgomery Sts.	92 Riverside Street
Albany 1, New York	Chillicothe, Ohio
Route 41, South, Hahira, Georgia	

Purely Mated Italian

QUEENS

By Air Mail, \$1.00 Each
Also Package Bees—See May Ad

SUNRISE APIARIES

Box 166, Petal, Miss.

WANTED

BULK HONEY
Cash on Delivery

HONEY HOFFMAN

No. 4 N. 8th St., St. Louis 1, Mo.

THREE BANDED ITALIAN BEES AND QUEENS

Bees can't get it if you haven't got it. But if you have the nectar flow, our bees and queens will do the job for you. Gentle, prolific. Fresh from our yards.

	Queens	2-lb. w/q	3-lb. w/q
1-24	80c	\$2.55	\$3.55
25-99	75c	2.55	3.55
100-up	65c	2.45	3.45

For queenless package deduct price of queen. We have no disease or Nosema in our yards. Fast service. Satisfaction guaranteed.

LUCEDALE APIARIES

Lucedale, Mississippi

LADYLIKE Caucasian queen bees. They produce colonies that produce real honey crops. Ask your neighbor who uses them.

Select untested — \$1.00 each. 10 to 24 — 90c each.
25 through 49 — 80c each. 50 or more — 75c each.

THE CAUCASIAN APIARIES, Castleberry, Ala.

Starline

Sunkist

Italian

If you are looking for Quality at the Right Price, Order Now. You can pay a lot more but you will not get any better quality than Sunkist-reared **STARLINES** or light-colored **ITALIANS**.



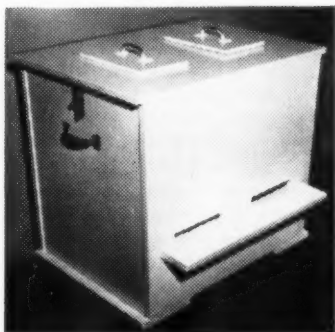
	Italian Queens
1-24	75c
25-99	70c
100-up	65c

	Starline Queens
	\$1.40
	1.30
	1.20

Queens clipped,
air mailed. Marked
on request.

SUNKIST BEE COMPANY

Convent, La.



TWO-QUEEN CONVERTIBLE HIVE

Patent Pending

All beekeepers, in all parts of the world, aim to have large colonies in the Spring of the Year before the main honeyflow starts. The Two-Queen Convertible Hive has been designed and developed to raise large colonies in record-breaking time and to eliminate difficult, costly, unpleasant labor.

1. It gives higher production of honey at lower costs.
2. No other new equipment is necessary, all standard equipment will fit the New Hive.
3. It keeps bees less disturbed—more contented.
4. It promotes better control of bees.
5. It is complete, ready to use, well made.

Write for free circular giving full information.
Price without frames \$18.00, delivery charges extra.

John J. Maendel

Forest River Colony

Fordville, North Dakota



THE NEW DON-LO LOADER

Stop Ruining Your Back Lifting Heavy Loads. Let DON-LO do it. Electric, 6 or 12 volt - 360° Swing Boom. Raises to compensate for high loads. Vertical equalizer. Fits any truck. Easy to install. Reasonably priced.

Call or Write

Ronlake's Machine Shop

Box 767, Redding, California
Phone 19

NEWTON BEE CO.

9119 Jefferson Hwy.
Baton Rouge, La.



Reg. U.S.
Pat. Off.
and buy
breeder.

SPECIALIZING in Dardant Starline queens, and old regular stock.

Same quality and service offered as in the past. BEEWISE, and buy from an experienced breeder.

YELLOW ITALIAN QUEENS

1 to 50, 75c ea. air mail. Over 50, 65c ea. Health certificate and live arrival guaranteed.

Johnnie Arnouville
Hamburg, La. Box 106

Use Electric Heat

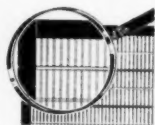
to build up your colonies
for better honey yield.

Write to

GEORGE ADELHARDT

303 Johnson St. Libertyville, Ill.

Chrysler's Electric Welded All-Steel Queen Excluder



The only
worthwhile
Queen
Excluder
on the market

- Allows maximum bee passage
- Better ventilation
- More honey production
- No wood. No Burr combs
- No sharp edges to injure bees
- So durably made that it is permanently queen excluding and will last a life time.

We manufacture a full line of Bee Supplies. Order from our dealers or direct from our factory. Canadian-made goods are cheaper. No duty. Send for our price list.

— Dealers —

A. G. Woodman Company, Grand Rapids, Mich.
Strickler Bros., Mobile, Ala.
Sioux Honey Assoc., Sioux City, Iowa.
Prairie View Honey Co., Detroit, Mich.
A. H. Busch & Son Co., Reedsville, Wis.

W. A. CHRYSLER & SON
Chatham - Ontario - Canada

BRITISH BEE JOURNAL

THE ONLY WEEKLY BEE
JOURNAL IN THE WORLD

Subscription \$4.50 per annum
payable in advance

Keep up to Date in Beekeeping
by taking out a subscription now
through our agents:

AMERICAN BEE JOURNAL



ALL AROUND THE BEE YARD

G. H. CALE

preciation to your beekeeping? I often gaze about a yard and, for the moment, lose sight of colony condition, however satisfactory it may be, and long for time to "beautify." Should rake out all debris; cut brush; line up hives; replace equipment; even put in flowers! Wish I had just one yard like that. But there is evidence that bees, being wild creatures, want none of it. When hives are actually helter-skelter, in apparent disorder, with brush, weeds, trees or other markers for each colony, we have less loss of queens, fewer drone layers (because of lack of mating in supersedure) less drifting. Bees suffer some from "beautifying."

Accessibility is a location must. Years ago, with horses and wagons and poor roads, it was of less importance. Today, with autos and universal all-weather roads, it is easy enough to find locations into which you always have access, come rain or shine. In our time we have had bees in the most hard-to-get-in places imaginable. Now, to have a yard even moderately difficult of access seems a hardship. Too, years ago, many country people did not want bees around. You had to hunt for a welcome. Now, because of the wide acceptance of bees for pollination, it is no trick at all to find farms where the bees are not only welcome but where there is often no rent required for a place for the bees. And, if you have to leave the location the landlord will be very unhappy about it.

Ever try moving bees on a cool April morning without any advance preparation? Just smoke each hive entrance repeatedly, even when there is some flight. Then incoming bees stay put and outgoing bees stop going. Load the hives on the truck with the motor running and go. Few bees remain behind.

In the March 11 issue of the British Bee Journal, Dr. H. M. Fraser comments on this department in the February Journal and says some nice things to cause me to blush. But too he says, with respect to my comment about bees flying in January, that the hive from which bees may fly strongly on such an occasion is probably short of stores. Never thought of that. It is interesting and when January flight happens again perhaps we can check such colonies to determine the weight of stores present.

In spring it is always interesting to experience the eternal conflict between the seasons, winter relinquishing its hold with reluctance and the rebirth of life with its varied tapestry of leaf and flower, color and sound. It is never the same; it is late or early; scant or lush; generous or niggardly. If it is not on time, it later catches up. Some rebirths are always on schedule. For instance, the redbud will be in late bud or full flower, or falling petal on April 25. White Dutch clover will show scattered bloom on May 15 to 20; yellow clover a bit later. You can count a whole succession of bloom from redbud—fruits, dandelion, elm, willow. Bees will not need feed too much during this time but they will enlarge brood areas to bring danger between "spring bloom" and flow time. Then, if you do need to feed, be sure to do so. This year, seemingly backward, pressed most early bloom into an all-together period so many colonies actually stored some reserves. Now (May 19) the bloom and seasonal schedules are right on time.

Don't you wish you had time to add some expression of esthetic ap-

"Bee Wise-Woodmanise with Your Bee Supplies"

A. G. Woodman Co. (Send for catalog—350 Listings) **Grand Rapids 4, Mich.**

JENSEN Says . . .



With package-bee orders mostly filled we are concentrating almost wholly on our queen-rearing, so "RIGHT NOW" service can be accomplished on small or large orders.



Dadant's Improved "Starline" 4-Way Hybrids Clipped and Marked Free. Our Italians on request only.

	Prices:	"Magnolia State" Italians	"Starline" 4-Way Hybrids
1-24	\$1.10	\$1.40
25-99	1.05	1.30
100-up	1.00	1.20

For 50 Queens in Our Special Carrier and 2½ pounds of bees add \$2.50; 100 Queens same, and 4 pounds of bees add \$4.00. You will like the good condition on arrival, and the simplicity of carrying to out-yards. Safe-keeping and ease of introduction. A customer in Colorado says: "Most of them were laying the third day." That's an important point.

Carriers remain our property and prompt return when empty is requested. Return postage is guaranteed by us.

For speeding your order to us use Western Union or Telephone 131J.

JENSEN'S APIARIES

Macon, Miss., U.S.A.

"Where Satisfaction Is a Must."

LEAHY BEE SUPPLIES

- Top Quality
- Moderately Priced
- Personalized Attention to Each Order
- Prompt Shipment

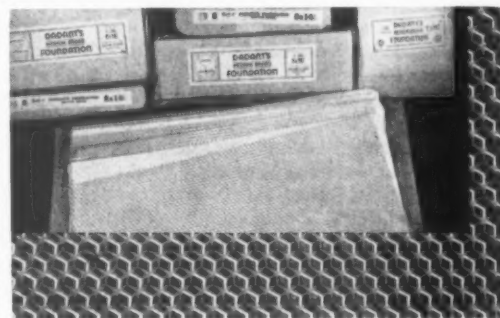
1954 Catalogue Is Now Ready

Write for Your Free Copy

Leahy Manufacturing Co.

Box 3269

Higginsville, Mo.



Dadant's Plain Foundation

Over 75 years of "know-how" go into the manufacture of Dadant's plain Foundation. If you prefer to set up your own by hand, buy the best, Buy Dadant. Every sheet is equal to the best ever made. Every sheet inspected, hand sorted, and tissue packed in tight cartons.

DADANT & SONS, Inc.

Hamilton, Illinois

LEWIS-DADANT BRANCHES

Stephenson Ave. at 14th St. 1010 W. Austin St.
Lynchburg, Virginia Paris, Texas
Colony & Montgomery Sts. 92 Riverside Street
Albany 1, New York Chillicothe, Ohio
Route 41, South, Hahira, Georgia



S WE SEE IT

EDITORIAL

What about Tomorrow? . . .

When you stop to realize

- that our population increases by over 2½ million persons every year;
- that there is an average daily increase of over 7,000;
- that it takes about 16 tons of food to supply this many people for a day;
- and that the average adult eats his weight in food every 6 to 8 weeks—

you become increasingly aware of the importance of farm production in our economy.

In these words the Treasury Department spearheads a letter to induce farmers to buy bonds as a saving for replacements of wornout equipment. Good sense too; just as good for beekeepers.

But think what these estimates may mean to our honey business. We face more people who must eat more things but who won't take the least trouble to pick our honey out of the food pile unless we give them good reason to do so. Remember tomorrow's market depends on today's preparation.

Fair Exhibits . . .

Fair exhibits are exacting efforts. To be worth while exhibits require effective attention to detail, good planning, and year by year repetition. They demand, too, showmanship and skill and many producers do not want to engage in such an undertaking. However, those who have become well known for their fair exhibits have also become well known for their honey and, when

awards are in the top brackets, the producer who builds publicity on his achievements and the reflection of them is in the quality honey customers slowly come to ask for what he has to sell. The advertising value of correctly conducted and vigorously followed up fair "selling" is worth the effort.

National Contests . . .

Most of us like lively contests whatever the type. In beekeeping we have a chance for an unusual amount of publicity in contests that not only would kindle enthusiasm among beekeepers but also would engage the keen interest of the public. In last year's first National Honey Show, under the leadership of C. D. Floyd, in St. Paul, the Killions of Illinois were sweepstakes winner. Pictures of the honey in the show and trophies were published widely. Folks think Killion's honey must be pretty good! Mind you, that was a National Honey Show. How about local, state, and national elimination contests for an American Honey Queen? It's not as silly as it seems. People follow the stories on similar contests everyday. The Newspapers are loaded with the pictures of contest winners. Once we get going on the nation wide contest idea, with some keen publicity tieups, we will soon have a following that will increase our total of permanent honey eaters. So why not whoop it up? Even if we think it's kid stuff, we all like it.

On the Ball . . .

The Federation needs you; the Institute needs you; the state and local associations need you—said over again and often. But that's not putting it right. You need the Federation and the Institute and the associations. Without them you are like the ants.

An old saying is if you want to learn observe the ant. Two fellows were playing golf and one being a novice knocked the ball on his first try over two hundred yards and it rolled out into the rough next to an ant hill. The novice set up his ball and swung on it but missed the ball and hit the ant hill scattering ants in all directions. He swung again and again, each time missing the ball and scattering ants, until finally only two ants were left. The situation looked serious to them, finally one ant said to the other. "We had better hurry up and get on the ball or else we will get all hell knocked out of us." We as beekeepers are in the position of the two ants. (E. H. Ade in March "500" Club letter.) So get on the ball. Then contact your fellow beekeeper and get him on the ball also.

Why White Honey? . . .

This is the question asked by J. B. Peacy, of Minnedosa, Manitoba, in the April Canadian Bee Journal. It repeats the title used in an article by R. W. Maguire in the February issue. So we repeat it too—why white honey? Experiments in food value show that the value in diet of most darker honey is superior to the value of the white honey. What started the discrimination? Was it price pressure to place lower value on dark honey? Was it consumers who like white honey better? In our opinion, if either, it was price pressure. Peacy says we should have distinctive labels, Gold label for dark and Silver Label for light honey. Why not? One producer in Wisconsin who puts up a splendid quality pack sells buckwheat honey for more money than light honey. An European buyer here to get carload shipments of packaged honey tried to get a carlot of Spanish needle honey because of its fine flavor and beautiful color! Let's stop the discrimination and sell honey for its quality and food value and not for its color.

Dovetailing Machine
For making beehives and supers.
Special size for beekeeper's shop.
Details on request.
CARL E. JOHNSON CO.
1557 Gregory Avenue
Lincoln Park 25, Michigan

HOLLOPETER'S ITALIAN QUEENS

are reared in the mountains of the North, from stock full of vim, vigor, and vitality. Queens reared by the veteran queen breeder, J. B. Hollopeter with 44 years' experience.

Prices:

1-9, \$1.00 each; 10-24, 90c each;
25-49, 80c each; 50-99, 75c each;
100-up, 70c each.

White Pine Bee Farms
Box 800 Rockton, Penna.

**Three-Banded Italian
Package Bees and Queens**
Jackson Apiaries
Funston, Ga.

**We Work Your Beeswax
and Purchase All Grades
of Honey.**

**We pay you the best prices for
quality honey and beeswax.**
Write for our new 1954 catalog.
THE FRED W. MUTH CO.
229 Walnut St., Cincinnati 2, Ohio

Palmetto Quality Queens
On same old basis, Quality, Service,
Satisfaction.
Three-banded Italians only.
Balance of season.
1 to 5 75c each
6 to 10 70c each
More than 10 65c each
No disease.
C. G. ELLISON & SONS
Belton, S. C.

BEEES and QUEENS
Send for FREE Circulars
Booking orders now.
Over 30 years a shipper.
Blue Bonnet Apiaries
Weslaco, Texas

CAUCASIANS

Thos. S. Davis
3129 Howe Avenue
Sacramento, Calif.



26th Year of Faithful Service

- (1) New Improved Dadant Starline 4-Way Hybrid Queens.
- (2) GARON'S Own 3-BANDED QUALITY ITALIAN Bees and Queens.

	QUEENS		Package Bees with Queens		
	Italians	Starlines	2-lb.	3-lb.	4-lb.
1-24	85c	\$1.40	\$3.15	\$4.10	\$5.05
25-99	80c	1.30	3.00	3.95	4.90
100-up	75c	1.20	2.75	3.70	4.65

When Dadant Starline queens are wanted with packages, add 25c extra per package. Queens clipped and/or marked, also Air Mailed upon request at no extra charge.

GARON BEE CO.

Donaldsonville, La., U.S.A.

ITALIAN "GULF BREEZE" QUEENS

Good queens are essential in your operations. **GULF BREEZE** queens have won praise where used. We have the know-how and equipment to assure the best quality possible.

Prices: 1-24 80c each 25 or more 75c each, postpaid.

BESSONET BEE COMPANY

Donaldsonville, La.

Three-Banded Italian BEEES and QUEENS

Get the best your money can buy. Write for prices. All backed by 18 years experience in queen breeding.

AUTAUGA BEE FARM

Prattville, Ala.



QUEENS "Italians" QUEENS

We offer you young laying queens, shipped prepaid Air Mail. Mark colonies with old and failing queens and replace when conditions are favorable. Queens available until November 1st. Clipped and painted at no extra cost.

1-9, 75c ea.; 10 up, 70c ea.; Tested Queens, \$1.50 ea.
Quality Does Not Cost . . . It Pays

THE WILBANKS APIARIES

Claxton, Ga.

Gentle and Productive

Italian and Caucasian package bees and queens. Full weight, health certificate, and live arrival guaranteed, send your requirements now.

— PRICES —

	1-24	25-50	100 up
2-lb. with queen	\$3.00	\$2.90	\$2.85
3-lb. with queen	3.90	3.80	3.75
4-lb. with queen	4.85	4.75	4.65
5-lb. with queen	5.75	5.65	5.40
Queens	1.00	.95	.90

— Prices after May 15th —

	1-24	25-50	100 up
2-lb. with queen	\$2.75	\$2.65	\$2.60
3-lb. with queen	3.60	3.50	3.40
4-lb. with queen	4.45	4.30	4.15
5-lb. with queen	5.25	5.15	5.00
Queens	.90	.85	.75

FARRIS HOMAN

Shannon, Miss.

Panel for June

The Value of Planning and Records in Outyard Management

Panel Members

Joseph O. Moffett

Assistant Entomologist, Colorado Agricultural and Mechanical College, Colorado Experiment Station, Fort Collins, Colorado. Moffett suggested this subject in a letter which he wrote to the editor on January 8 suggesting panel subjects. He has figured in our "Round-Ups," "Spotlights," and present Panels as a valued contributor.

John W. Holzberlein, Jr.

John is not only a commercial beekeeper with excellent original methods and ideas but he is active in Colorado beekeeping movements and in National Federation affairs.

E. A. Hogarth

Hogarth is one of the most successful of Ontario's beekeepers. He has one of the finest central extracting plants. He is an active member of the Ontario Co-operative Association.

Newman I. Lyle

At Sheldon, Iowa, Lyle and his wife have long been successful beekeepers. Lyle is active in Federation affairs. He is also one of the prominent members of Sioux Honey Association.

N. C. Jensen

N. C. Jensen, honey producer, package producer and queen breeder, is at Macon, Mississippi, contributing as a leader to national affairs and one of the most successful queen breeders with two stock lines, Magnolia State and Starline.

Dr. William L. Coggs

Coggs, as indicated in our previous discussions, is a member of one of New York's leading beekeeping families. He is now Associate Professor of Apiculture at Cornell University. He is no theorist.

Joseph O. Moffett

Adequate and wise planning is often the key to success. A few things to be considered in outyard management are:

1. The number of colonies in the different yards.
2. The use of some yards for wintering and spring build-up, followed by a move to a honeyflow.
3. Location of the yards so that travel is eliminated as much as possible and yet there is no sacrifice of good bee pasture.
4. To each apiary go equipped to meet the normal problems that are to be faced in an apiary examination. This could include having nuclei in each yard so queenless colonies or colonies with poor queens can be properly provided with queens. Drugs for treating disease; Cyanogas for killing weak or advanced diseased colonies; all your tools, as hammer, nails for repairs, etc.; extra hive bodies, covers and bottom boards for each yard.
5. Most of the materials normally needed for outyards should be kept in a box or container in the truck such as a smoker, veil, hive tool, hammer, nails, fuel, chemicals, etc.
6. On an extended trip, prepare a list of needed things before the trip is started. Check this list before leaving to make sure everything is on the truck.

Keeping records divides itself into records for individual colonies and the over-all apiary record. Colony records are often written on the inner cover or on a sheet of paper attached to the inner cover which tell the year the queen was introduced, the source of the queen, the

disease record of the colony, date of examination, normal observations, presence of queen cells, successful mating and laying.

Temporary markings on the outside of the cover may be used so that a glance will indicate the colonies that need attention. Use of rocks in specific position, each position meaning a definite thing, or the use of sticks. For instance, a rock with a stick running lengthwise might mean American foulbrood with a stick crosswise European foulbrood, normal colony, rock in center.

A record book for each apiary containing the facts about each, can furnish valuable information, both for the season now and for further reference, the location of the apiary, number of colonies in the apiary, kind of queens, condition of the apiary at these examinations. For instance, a report might read: 3 colonies EFB, treated with TM-5, apiary short on honey, amount of honey taken from the yard, etc. These records allow the beekeeper to determine which yards are his best producers and help him decide areas into which to move more bees or move bees out of. He can also determine if some yards are more prone to disease than others. In other words, he can have more concise information. Also he can have more concise information on the relative merits of queens from different breeders.

John W. Holzberlein Jr.

It is our rule to keep records at a minimum for they may easily become time consuming, and in themselves they never got the job done. We try to do all the work necessary

Troy Nance

Troy H. Nance, Sacramento, California, not only is a producer of Caucasian bees but he is one of the most prominent beekeepers engaged in pollination service.

John W. McFadyen

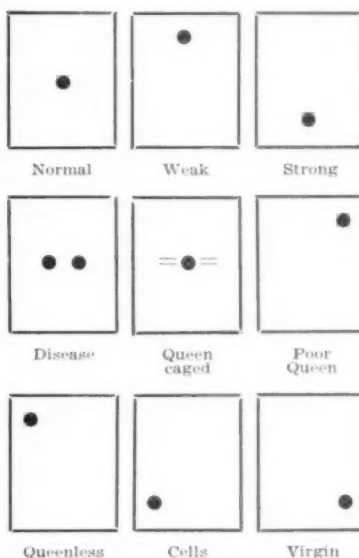
Of McFadyen Apiaries, Tiverton, Ontario, another prominent honey producer in the province. He and his son are in business together.

in our yards at each visit, and leave as little to write about as possible. But in order to do this very thing some records are necessary to keep from forgetting some of the equipment needed or that a certain yard needs special attention. In this respect records save time instead of wasting it. We separate records into two kinds. The first is the colony history and might be omitted, except that we are constantly trying to improve our stock and to do this it is just about necessary to at least keep a queen record on each colony. We do this on a small tag under the inner cover on each colony. One line may be all that is used in a year and is the ideal situation. On this tag we record the origin of the colony, e.g. "2-lb. pack- Hy q -1952" will denote that the colony began in 1952 as a package with a Hybrid queen. If the queen is replaced or later superseded, a record of that is made. Or if the colony shows any special honey gathering ability or other characteristics they are noted here.

If one has several outyards it is just about imperative that a yard record book be kept. Ours is kept with an alphabetical index which just about takes care of our 28 yards, with each yard having a separate page. Usually the yard is designated by the first letter of the landowner's name, thus: our "M" yard is on the Marshall place. But sometimes adjustments have to be made for we have another yard on the Morris place, so it is designated as "B" for it is on Beaver creek. It is relatively simple to give each yard an identifying letter that is easy to remember. In this book we note the number of colonies in each yard, keep a record of the dates when each yard was last visited, and the general conditions at the time of the visit, thus: "6-14, no flo, no swmng, feed ok, room needed" will tell us that the yard is normal for the season and that at the next trip more supers will be needed. The next visit might read: "7-7, good flow, supered for 3 wks, take honey then and super for balc. of season." The five to seven visits each yard gets in one season are all kept on one page, and a fresh page used for each year. By checking back over previous season's records it is pretty easy to learn what to expect from each location, and to help make plans for the coming season.

We have one other record that is so automatically kept that we sel-

dom think of it, yet it is a great help in all our work, and in my queen rearing I would not know how to get along without it. It is our stone-mark system. Many beekeepers use one and this is one we have worked out for our own convenience. On each hive we keep a stone, a small one during the producing season, and a large one during winter. By its location on the hive cover it tells a story. If the colony is normal the stone is in the center. But if there is any abnormal condition worthy of attention the stone is located to show what that condition may be. Below are the stone locations we most commonly use.



The front of the hive is shown at the bottom. The last four positions are particularly useful where queens are being raised. The stone takes the circle of the hive as the steps progress and when the new queen is laying ends back in the center of the hive.

E. A. Hogarth

With the present low price of honey and the high cost of labor and supplies, it is necessary to plan operations carefully to show a profit. Elaborate records are not necessary but we should have a record of all expenses, mileage, and labor and an inventory of all supplies.

Then we must take the time to analyze this and compare it with other years. Where can we cut out costs and still produce an excellent crop? Can we cut down on mileage? Were all those trips necessary?

Should we increase our operations or would it pay better to curtail them? Are we using time to advantage during the season? Have we enough supplies for a maximum crop? Should we feed sugar? Does it pay or would it be more profitable to leave more honey with the bees?

Planning for next year's crop begins in July and August when all failing queens should be replaced with young vigorous queens for overwintering. Ample stores of honey should be left with the bees. Adequate shelter provided. Then we can plan next year's operations.

During winter, overhaul all equipment, repair it, paint it, assemble new equipment, pile it so it is readily accessible for loading on trucks. Brood combs are piled running east and west, super combs running north and south so there is little chance of making mistakes in loading. Replace tools, put the honey house in order, enter early orders for queens and packages. In other words, do everything that can be done during the winter.

In summer there are only a limited number of days on which bees may be worked to advantage and we must make definite plans beforehand to make full use of them. Winter is the time for reading the journals, attending meetings. It pays.

Records may show that some yards have not been getting good crops and should be moved to better locations or show that some yard should be moved nearer home or where more readily accessible. If a yard is off by itself, try moving it in a circuit with other yards if possible. Also plan to have a driveway through all yards.

The cost of labor is high in producing honey. We are sure it pays to treat our help the way we would like to be treated. Keep the same man every year. There is no profit in training new help if it can be avoided. Have your working crew and the yards the right size so that one, two, or three yards can be worked each day.

We make a list of what is required each day so the men won't overlook an important item. It is better to take more equipment than needed than to be short. We also have queens in season coming in daily when they are needed so we can do our requeening as we go along.

If colonies are as uniform as they should be, very few colony records are necessary. Attention required for

special colonies is noted on the inner cover. Then a stone or a block is placed on the cover so that we will know the colony that needs special attention. We carry a small book and before we leave the yard we make a note of what is required next time.

Newman I. Lyle

With the shortage of help most beekeepers are faced with, it is necessary that every move be made to count, both as a need to save labor and expense.

We used to keep an elaborate set of records. These were a satisfaction as we always knew what each and every colony was doing at all times. Finally, the pressure of time and labor forced us to, at least try, to operate each yard as a unit.

When we unpack, we check and do a little requeening of the colonies with inferior queens. The next time around we set up our two queen colonies in all the rest of the yard, not previously requeened. The weaker colonies are helped with sealed brood from the strong colonies to completely double queen the yard.

We like to use a system, in our double queen management, much like Mr. Dunham's or Mr. Schaefer's. About one-half the yards are operated and requeened with mated queens introduced. The other half, the yards requeened with mated queens the previous year, are operated by the Schaefer method. Needless to say, we have our own modifications of the methods.

By operating the yards with unit management, we minimize the need of records. A notebook with exceptions listed and routine notes is all that is needed with this system.

If at the time of unpacking it is necessary to feed, we shift honey from the very heavy colonies to the light ones, of course carefully inspecting for disease. If additional feed is needed an extra trip may be required.

The yard is supered as a unit with an eye to crop prospects. Extra strong colonies get an extra super, backward colonies a super less than the average.

When supering, we always try to keep in mind that the usual tendency is to super too little, early and too much, late.

N. C. Jensen

One of the most valuable things in our opinion in outyard management is to have queens in reservoirs which may be carried to the outyard

and used where needed. A simple way to hold queens for an extended period, is in a small hive holding five combs (nuclei box) with 1½" spacing of frames. This allows four frames of brood and honey and a 2" space in the center for the frame to hold the queens in their cages and also allows ample room for the bees to cluster around the queen cages which are put in a holding frame made from an empty hive frame with a strip in the center on which to rest the cages and two thin strips of wood at the side of this platform to keep the cages from falling out. The queen cages are placed on the holding shelf, back to back, so that there is a line of cages facing one way and another line of cages facing the other, allowing the bees in the nuclei to feed and take care of the queens.

The queens should be without attendants, some shippers (as in our case) ship queens in a special carrier in cages without attendants and they may be transferred without much trouble to the queen reservoir or nucleus box hive. This nucleus box or reservoir should have a telescoping cover for the top and so when a trip is made to the outyard, you only need to put a V screen in the entrance and put the reservoir on and go. Periodic addition of two combs of emerging brood to the reservoir will keep the queenless population up, which of course is very important.

Those who furnish queens in special carriers, often holding up to 104 queens, keep the queens in the pink of condition for a reasonable period of time as long as the cans contain sirup or the candy boxes have candy in them. The special carriers also have flight-holes so bees can be given cleansing flights on nice days. Tests prove that queens so shipped and stored may be confined for quite a period of time without injury.

This makes queen replacement or requeening, or correction of queenlessness a trip by trip, almost continuous process and is a highly valuable short cut and keeps colonies in each yard in trim condition in respect to the age and quality of queens that will produce the colonies for a honeyflow.

William L. Cogshall

The title of this panel is very appropriate. I have a few practical suggestions as an individual member of a family operating about 1200 colonies.

The problem is a need for con-

cise records which take little time and yet are complete enough to plan trips. The best record sheets include simply diagrams of the apiaries, showing the actual size of colony, number of supers on them, simple notes on colony condition so that even different individuals could go to the yards with confidence about the situations that they find.

Our own records are kept constantly in a notebook in a truck glove compartment. General conditions, number of supers on hand and on colonies, needs for the trip are the usual entries. It is simple to find then how many supers may be removed at the time of extraction, full loads of honey brought back to the plant may be arranged by planning the visits to the appropriate yard.

However, anyone who has ever tried, on a commercial scale, to record individual colony conditions has seldom continued the practice, particularly when those records are on paper and have to be made on a hot day with your fingers covered with propolis. By the time you have recorded a few notes, everything is pretty well glued up.

Carrying nuclei on the truck is good practice for replacing falling queens, better I think than maintaining queens in nuclei in each apiary because these nuclei permanently in the yards crowd themselves when they are not used, and then they are a general nuisance. I prefer nuclei made up in a yard which is kept just for the purpose near the base of operations and these nuclei can be established from extra brood brought in from the outside.

Troy H. Nance

To be successful and save time and expense in outyard management, I would like to say something about the motor truck and the equipment carried in it.

To begin with, in operating up to 500 colonies in locations which consist of 25 to 50 colonies each, I think a popular one-ton dual truck with 16-inch wheels is the best vehicle. A flat bed with side hooks is low and accessible. I can haul three tons on this vehicle and when running empty for just general manipulation it takes little more gas than an ordinary passenger car.

There are two metal boxes with hinged doors, approximately 2½' x 1½' x 14" deep bolted to the underside of the bed just back of the cab,

(Continued on page 239)



An old fashioned, ice-type refrigerator, houses a fine swarm of bees, which H. E. Dale, who took the picture, says are "very hard to inspect." Dale is a producer, distributor and inspector at Herrin, Illinois.



"Bees at the Fair"—This observation hive of bees at work was very popular at the 1952 Dade County Youth Fair at Miami (Photo by Porter V. Taylor, South Miami, Florida).

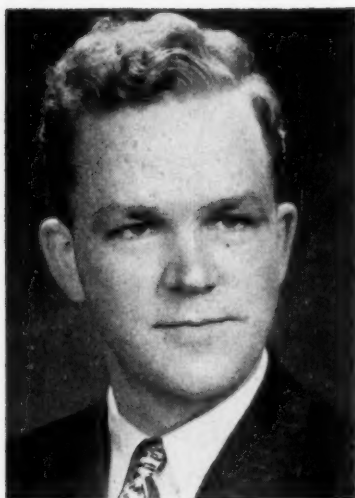


Dr. S. W. Edgecomb, familiar to many readers because of his interest in bees while he was in the states, is now Dean of the School of Agriculture in the American University of Beirut, in Lebanon. Presumably beekeeping is still a part of his job. Lebanon may be a hot seat now because of political upheavals. From the pictures we have seen, Sam must be in a beautiful country and we wish him the best in everything.



FROSTED HONEY PRUNE BARS

- | | |
|--|--|
| 2 cups cooked prunes | 2 cups sifted all-purpose flour |
| $\frac{3}{4}$ cup shortening (part butter or mar-garine) | $1\frac{1}{2}$ teaspoons baking powder |
| $\frac{1}{2}$ cup granulated sugar | 1 teaspoon salt |
| $\frac{1}{2}$ cup honey | $\frac{1}{4}$ teaspoon soda |
| 1 teaspoon grated lemon rind | $\frac{1}{3}$ cup milk |
| 1 egg | 1 cup chopped walnuts |
- Pit prunes and chop. Cream shortening, sugar and honey together thoroughly. Blend in lemon rind and egg. Sift together flour, baking powder, salt and soda. Blend into creamed mixture alternately with milk. Fold in prunes and walnuts. Turn into greased pan 9 x 13 inches. Bake in moderate oven (350°F.) about 35 minutes. Decorate as desired.
- #### LEMON FROSTING
- | | |
|---|--|
| 3 tablespoons butter or margarine | $\frac{1}{2}$ teaspoon grated lemon rind |
| $1\frac{1}{2}$ cups sifted confectioners' sugar | 2 tablespoons cream or milk |
| 1 tablespoon lemon juice | |
- Cream butter and blend in sugar alternately with lemon juice, rind and cream. Makes about 30 bars ($1\frac{1}{2}$ x $2\frac{1}{2}$ inches). (American Honey Institute)



Apiary Locations

by R. J. Walstrom*

THE term apiary locations, in the modern sense, covers a multitude of possibilities. This is due primarily to very mobile present-day equipment with various types of vehicles capable of moving several hundred colonies per load. Nationwide selection of apiary locations or, in fact, apiary locations anywhere on the continent, are not uncommon and incur various complications of a more or less legal nature. Such items as obtaining proper certification of bees and equipment prior to interstate transporting must be carefully observed on the part of beekeepers entering this long distance moving phase of apiculture. Several states now require the listing and registration of apiary locations. All of these items pertaining to the requirements of the various states can be checked relatively rapidly by the beekeeper by contacting his own state apiarist. A little prior checking on these points can make the difference between success and failure of long range operations.

The requirements for permanent apiary locations cover many of the requirements for all types of apiaries. Of primary importance in this field is the checking of the records in the contemplated area to determine what the average honey yields have been. Such checking provides a basis for the beekeeper to estimate the anticipated yields in the future. Information of this type can be obtained by checking with the State Apiarist in the state concerned and by checking the United

States Honey and Beeswax Production Report for the various years as prepared by the Agricultural Marketing Service Crop Reporting Board. The details obtained from such sources are, as a rule, indicative of production on a state-wide basis. For more detailed information, it is highly desirable that a person anticipating establishing apiaries in an area unfamiliar to him contact all possible beekeepers in that area to determine what the local yields have been. This contact is of further value in that it gives one the opportunity of checking as to over-crowding and other specific details.

The trend of modern agricultural methods makes it highly desirable to consider the chemical hazards in the immediate area of a proposed apiary location. In areas where orchards are common, it is highly desirable to make a check as to the usual spray schedules and the adherence to these schedules by the local orchardists. The ground cover in orchards should give the beekeeper some concern where this cover consists of, or includes, legumes. It has been found that the residues from the trees sprayed earlier in the season may cause a potential threat to the bees visiting these flowers later in the season. This seems to be particularly true in the case of white Dutch clover and other low-growing legumes.

The normal application of general agricultural sprays for injurious insect pests usually is of no excessive danger to bees in the area. An analysis of the use of these sprays indicates the reason for this relative lack of danger. A majority of such sprays are applied to crops which have no attraction for honey bees. In these cases, the real danger is a potential possibility of the drifting of the spray material over the apiary itself. Sprays which are applied to legume crops for seed production and to most orchard crops are applied by individuals who are vitally interested in pollinating activities and are, as a rule, applied with due consideration for the preservation of such insects as the honey bee.

Another rather uncommon but vitally important chemical hazard is that of the appearance of industrial wastes which are of interest to honey bees. Many of these industrial wastes are of a sweet nature, attractive to the bees, and are stored by them during periods of dearth of nectar flow. With the wide variety of materials thus available in industrial areas, the beekeeper anticipating locating in an area with such potential would do well to investigate the means used to dispose of such wastes.

Another vital phase of determining a proper location for bee yards is checking on the disease situation in the area. All contacts with farmers, other beekeepers, state apiarists, and local inspectors will be of value in determining this situation. A little prior planning on this phase can give a great deal of aid to potential success in the area.

After a local area has been selected, the more specific requirements for the actual placement of the colonies must be contemplated. First of all, physical features are vitally important. Such things as a southeast slope, to give protection from prevailing winter winds and good air drainage, are very important if the colonies are to be wintered on the location. Attention to these details will also improve conditions for the spring build-up of the colonies. A natural source of water is a highly desirable attribute of a good apiary location. Preference on this item should be given to a gently flowing stream which will provide uncontaminated water throughout the year. The location should be above the flooding area so that colonies will not be endangered by flash floods or periodic rising and falling of nearby streams. In eliminating this danger it is often possible to take into consideration the advantage of natural air drainage. This provides an opportunity during the winter and early spring months for heavier, moist air to move down and away from the colony locations. Such procedure aids considerably in reducing the amount of moisture found in the colonies.

* Extension Entomologist, Iowa State College, Ames, Iowa.

A good windbreak on the west and north is important under most circumstances and is vital in many open areas. Such protection provides a relative dead space in regard to the prevailing winds and permits bees to work earlier in the day, particularly in the early spring months when cleansing flights are highly desirable. In addition to providing better wintering conditions, these windbreaks will make it possible for heavier supering during the earlier periods of the nectar flow without the danger of equipment being blown down by sporadic or normal seasonal winds.

The accessibility of a bee yard location is a very important point to consider. Naturally, apiary locations used for commercial honey production cannot be so located that they require crawling over three or four fences to get to them. The hand carrying of equipment any distance is taboo. In other words, accessibility by vehicular traffic is a must for practical beekeeping. Many beekeepers through years of beekeeping experience have found it desirable to have the route to the apiary location pass through the local barnyard so that any vehicles moving into the area will be readily noticeable to the tenant or owner on the premises. Experience has shown that this precaution aids in reducing pilfering and general theft in the apiary. Consideration of the routes across country to the apiaries must be given, due to the fact that in certain locations seasonal floods will make lowlands impractical for vehicular traffic. Cropping practices and the rotation of field crops will often influence the access route and should be considered in picking the location for the apiary.

An item of high importance in selection and maintenance of an apiary location is that of farmer-beekeeper understandings. It is very important that the beekeeper become acquainted with the person actually operating the farm. Satisfactory understandings with the farmer are mutually advantageous. It is important to take into consideration the distance from the house to the apiary location. Explain to the person on the farm just what the activities of the bees will entail. Explain the need for water by bees and therefore the desirability of having a natural supply of water. The farmer should be acquainted with the bees' natural tendency to collect

high protein materials, particularly in the spring months. This is particularly important where the farmer or his neighbors may be involved in feeding cattle to any degree. It may be highly desirable for the beekeeper to feed a pollen substitute or pollen supplement, either within the colonies or by open feeding methods in the bee yard to prevent the activities of the bees around cattle-feeding bunks. Many times the explanation of some of the basic fundamentals of beekeeping to the farmer will provide an understanding which will be of great value throughout the years.

Prior to moving the bees onto a location, a distinct understanding must be made regarding any possible rental arrangement. Oftentimes, by explaining the needs of the bees and the desirability of certain types of locations the farmer will propose other areas on the farm which were completely unknown to you as apiary locations and which will be of greater value. A little item which may be of considerable value to you is to leave with the farmer a self-addressed postcard with your phone number to be placed near his phone. This will give him the opportunity of contacting you should sudden storm or livestock damage, or other difficulties, occur.

With our present day movability of apiaries, temporary apiary locations are common. These temporary apiary locations include locations for the production of honey and locations for extending pollination services. In placing bees near or in fields for temporary purposes it is desirable to achieve somewhat different approaches to the problem, particularly where pollination services are being provided. It has been found that written agreements with the seed or fruit producer are highly desirable. The farmer-beekeeper relationship again is more important under these phases than under the normal honey production situation because of the greater need for coordinating field activities.

It is important to record in the form of locations on a map the number of colonies at each location for your various apiaries. It is desirable that this information be kept in a secure place so that in your absence your wife or family may be able to locate your holdings.

In conclusion, we might say that the use of vehicles in present-day operations gives the location of api-

aries a much broader potential than in the past. It is possible to move readily to nectar flows or to pollination needs and to thereby make more economical use of the available floral sources. On the other hand, the importance of the points discussed herein cannot be overemphasized in determining whether or not the actual move should be made. It is now even more important to evaluate the potential of the new location over that of the old location in order to preserve the economy of the beekeeping enterprise.

Notes from Practice . . .

For several years we have rented a few colonies for the pollination of clover and vetch, fruit and berries. We have learned to look over prospective locations and evaluate them from the standpoint of other bloom, total acreage, time of bloom, ease of access, windbreak, location of water and distance from the home yard.

The number of colonies per acre of crop should influence the fee. If we furnish only one per acre, we can very well afford to forget any charge just for the privilege of having a good location. Some want four good colonies to the acre and under this arrangement, we are fortunate if bees make their own winter stores. Theoretically, the greater number of bees gives a heavier yield of higher quality seed or fruit, enriching the grower but impoverishing the beekeeper. So to continue in the business you must collect cash fees under these circumstances or receive some part of the seed or the fruit as compensation. We do not believe that the service can be maintained for any less than \$3.00 a colony. Some want the bees a few days, some want them two or three months.

Then there is the problem of standard colony strength and the time of service payment. What will I tell the seed grower if my bees find flowers in another field more attractive than in his? Then he may settle reluctantly if at all, so it is best to collect when the bees are placed on location or have some agreement.

Pollination is no get-rich-quick proposition but it opens another field to help make beekeeping a profitable business.

Frank C. Fuge
Oregon City, Oregon

The Follower Board

by Carl E. Killion

Apiary Inspector, State of Illinois

WITHIN the last three years I have received over a hundred inquiries for information on how to make and on the dimensions of our follower board used in brood chambers.

In our system of management and selection of equipment we use the follower board. We find it a necessary part of our equipment, just the same as covers, frames or bottom board. In my book "Honey In The Comb" I mentioned the many reasons why we used the follower board. I did fail however, to give any measurements or details of its construction.

The boards are made by resawing or splitting $\frac{3}{4}$ inch lumber to give the desired thickness of the follower which is approximately $\frac{5}{16}$ " in thickness. We use a medium thickness saw for this purpose. The follower is made up of a top bar (A), two end bars (B), and three long pieces (C) for the main body of the board. The sizes of these pieces are as follows: Top bar A, $18\frac{5}{8}$ " x $9\frac{1}{16}$ " x $5\frac{1}{16}$ "; Ends, $7\frac{11}{16}$ " x $9\frac{1}{16}$ " x $5\frac{1}{16}$ "; Pieces C, $16\frac{1}{8}$ " x $2\frac{1}{2}$ " x $5\frac{1}{16}$."

To assemble, we lay the three pieces C on a flat surface and drive four corrugated fasteners as shown in drawing, Fig. (1). These are placed about one-fourth the distance from each end. On the opposite side only two fasteners are used and are placed in the center of the board, Fig. (2). The end bars are next, using two nails for each board C. The top bar is nailed on last and should be of equal length at each end. Each end of the top bar is notched so it will be flush with the tops of the frames. The notch may be made before nailing. All nails used are $1\frac{1}{4}$ " frame nails (coated). In buying the corrugated fasteners the proper size is $\frac{1}{4}$ " x 5". These are just twice as long as needed, so they are cut in half with tin snips.

Because practically all of the boards others will use will be in hives with Hoffman spaced frames

I will describe the spacing when used with this type of frame. On one side of each follower drive a double pointed screen staple in the top bar about two inches from each end, leaving $\frac{1}{4}$ inch out of the wood. In fitting the boards in the first hive body it might be best to first place 9 frames in the hive body and crowd the group an equal distance away from the sides. Next place a follower on each side with staples next to frames. The space between the boards and side walls should be the same. The board on the farthest side is removed and longer staples

used next to wall to maintain the space between board and hive. These staples are driven into the follower and not into hive body. The staple used for poultry has been very satisfactory, using two at top and two at the bottom of the board. We do not use these long staples in the frame nearest. In moving bees we oftentimes get our hives placed so that the boards have to be exchanged from one side to the other. This is true when hives are kept in pairs.

The picture in my book, page 14 shows the follower boards as well as frames.

Fig. 1

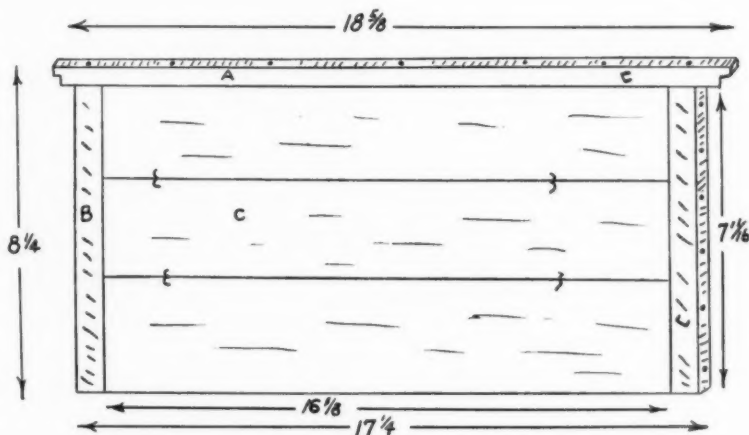
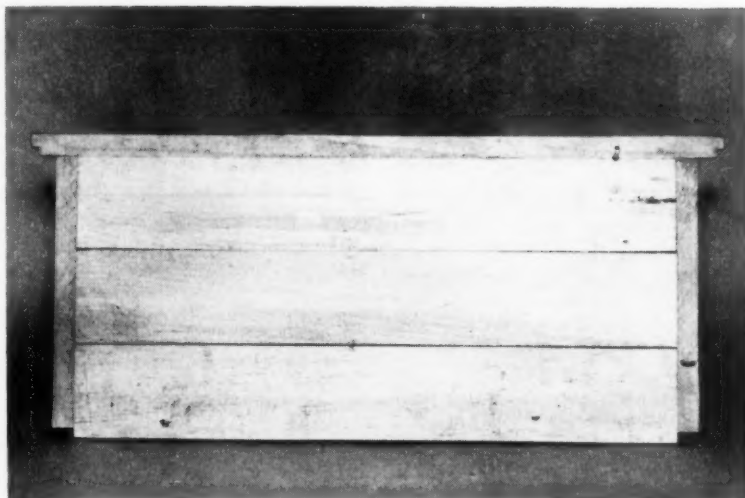


Fig. 2



Moving Hives on Pallets

by J. E. Eckert

University of California

BEEKEEPERS are continuously trying to mechanize beekeeping to save labor and to make easier the moving of heavy hives. This is particularly true where hives are moved in and out of orchards and seed crops, as well as in migratory beekeeping for honey production. Many have theorized that the ideal way would be to mount hives permanently on pallets or even on trailers. Herb Yates, of Mentone and points north, California, has put his theories into practice and is having fun making them work.

He has mounted a standard hydraulic lift on a cut-down Chevrolet truck chassis that will lift 2,000 pounds or better in jig time. He has installed special brakes to hold the truck and the load on sloping ground and a side movement of the fork in order to center the load or to make some allowance for the position of the truck in relation to the position of the pallets. Herb reports that it is much easier to run 12 2-story hives into an orchard with the hoist than to take in a truckload of bees. The same might be true of hives in a seed field. For short periods of time, the hives are

left stacked on the two pallets, one pallet of six hives above another. For longer periods of time, each pallet of six hives is placed separately but so that it can be placed on top of the other with a minimum of maneuvering of the hoist. For ease in manipulating hive parts, two end hives on each pallet are set off on the ground. The height of the pallets will get the hives out of irrigation water and lengthen the life of the bottom boards.

The hoist also comes in handy in moving or loading 48 supers at a time in the warehouse or stacking and moving 60-pound tins of honey. Clearing and leveling an apiary site can be done in short order by installing a blade on the hydraulic lift.

The economy of its use will be thoroughly tested this year. The entire truck weighs approximately 4,000 pounds and has to be towed with the load, a factor that takes more gas and reduces speed on hills.

Right: Herb Yates demonstrates how 48 supers of combs can be loaded on a truck at one time.

Lower right: Twelve 2-story hives, heavy with bees and honey, can be loaded on a truck by merely pushing or pulling a few levers. Loading time is faster than two men loading the hives separately, and is certainly easier on the back.

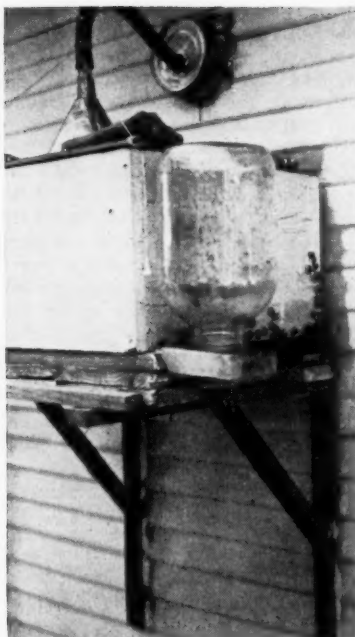
Below: Twelve colonies of bees can be moved into an orchard or a seed field at one time from a more heavily loaded truck.

Since Herb usually moves his colonies with two trucks on most of his moves, the lift can be used in loading and unloading both trucks. The weight of the hoist and the pallet will add to the cost of moving but if they will result in a considerable saving of labor and of time, the cost of assembling the loader will pay off. It certainly is easier on the back to load and unload hives mechanically, either by a lift of this sort, or by the several types of single or double hive loaders now in use in California.

Our beekeepers are freely predicting that a majority of those who operate 500 or more colonies on a migratory basis, or partly for seed production, will have some form of a mechanical loader within the next few years.

The type of loader illustrated can be used in loading fruit boxes placed on pallets, and in leveling, road repair and in many types of farm work.





A Hive Trap

by H. L. Hilliard, Sr.

HERE is complete information on how to remove bees from buildings and trees. The photograph is more explanatory than words as far as equipment is concerned; everything is visible but the bee escape.

If you can't control the bee outlet to one entrance, my advice (and I have moved a large number of bees from buildings and homes) is not to attempt to trap them out as it is next to impossible. When such a condition exists, the hammer and pinch bar, or the "go after them the hard way" is your only out, but if you think you can control them to one entrance the following method will usually work.

As you will observe in the photograph, where the bees enter the house there is a coffee can. The can was used because it can be cut and easily bent to fit the siding. In this can is a 2x4 inch block with a hole in it to fit the outside dimensions of a hose. The block is nailed in the can so that the hose can be attached or nailed to it. The hose runs to a funnel. A small square box could be used for the same purpose.

The unseen part of this procedure

is the inner cover. There is a bee escape tacked to it with the flanges in the bee escape blocking the bees' return to the original outlet, as the hive has no other cover during this procedure. I would recommend using a piece of masonite, as it takes three months to do a good job. Something that will not crack or buckle is needed.

Now we have the bees going inside the box or "hive trap," as we will call our project. If you have available two combs of uncapped brood and eggs, the remainder of frames in the hive trap can be full sheets of foundation. If you are not a beekeeper and cannot get the uncapped brood, your only alternative is to buy a candy-caged queen and suspend the cage on the foundation, or in other words follow the method of queen introduction. The uncapped brood and eggs are sure to help. A ripe queen cell hastens things along and makes your chances of success better, but introducing a queen is tricky and should be done by one with experience.

Feeding at this time is very necessary and an entrance feeder should be used. Give the bees $\frac{1}{2}$ gram sulfathiazole to one gallon of sirup made of two parts water to one sugar. Should the bees be infected with American foulbrood, and as it is impossible to examine them, this is a wise precaution.

Now for a list of things necessary to do the job. You will need a can, hose, funnel, bee escape, inner cover, brood box, bottom board, outside feeder, $\frac{1}{2}$ gram sulfathiazole tablet, two frames of uncapped brood and eggs, eight frames of sheet foundation, five pounds of sugar, one gallon of water, a $\frac{1}{2}$ gallon jar, a perforated jar top and two brackets to hold the hive in the desired position.

Here are a few things to watch. Reduce the entrance until after the excitement, or for about a week. Check your bee escape the second week, as the bees sometimes gum it up with propolis. Have an extra one in case this happens. If you use the queen introductory method, release her the sixth day with as little disturbance as possible.

After about eight weeks remove the hose, funnel, and can, and put on a super of drawn comb if you have it, if not, a super of sheet foundation. At the same time smear the original entrance with honey; the bees will return to the old location and transfer the remaining honey from the house or tree to your bee trap. If

you use drawn comb in your added super you need only a short period of a few days for the honey transfer, but if you use foundation, an added three or four weeks would be advisable.

The bees that are now robbing the old place out do not know that was their original home, and the old bees have died out. The entire procedure has caused a breakdown in population in the old location and a buildup in the trap in the new location. Leaving the trap set eight weeks or more is a must, whether or not you remove the honey. More time will be required if you let the bees clean out the old location.

This method is successful any time except November, December and January, unless you live in a climate where the bees are active and there is a nectar flow all year.

Louisiana

Honey Saved My Life

by Hans Hoch

AS a young man during the First World War, I spent the winter of 1915 in a P.O.W. (Prisoner of War) camp in Wladiwostok in Siberia. Laid up with high fever and dysentery, my heart had become so weak, that I needed the support of two comrades to get about. I did not want to enter the Military Hospital, because it was crowded with soldiers suffering from typhoid fever who were not separated from the other patients. However, as I became weaker and weaker, they finally took me to that dreaded place.

Upon my arrival there I learned that on account of overcrowding a new infirmary had been opened, and I was taken with about thirty men into this new building. The Russians did not begin heating it until the day of our arrival. Now the Siberian furnaces are very efficient; but the trouble is that it takes about two weeks to get them warm enough to radiate heat. After lying at freezing temperatures for two days and two nights, I was seized with hot and cold fits of fever. So when one of my friends came to see me on the third day, I requested that he bring me a coat,

for my two blankets were not warm enough. I told him that the only way I could get better, would be to get back into the barracks I formerly occupied; there at least I would be in a heated place. My friend cautioned me against this undertaking, saying that I was too weak to run the risk; for in order to avoid the three guards, I would have to make detours through deep snow. To which I replied: "I may die either way; so let me take the chance."

The next day my friend brought me the coat, and when at night the heavy snow-storms set in, my mind was made up. Summoning all the courage that I was able to in this do or die attempt, I left the hospital. In order to avoid falling into the hands of the guards, I had to trudge through deep snow drifts. But I succeeded in reaching my goal and quite exhausted I arrived in the warm barracks.

Covered only by my coat, I lay on the hard boards of my bed, without mattress and felt that I had spent the last reserves of my strength. For two nights and one day I lay so completely motionless that my comrades despaired of my life. On the second day I came out of my coma. Then my comrades told me that a Chinese peddler was selling honey in our camp. For lack of money I had him sell my watch, which yielded four rubles; and for that money he bought me the honey which I mixed with the tea supplied by the camp kitchen. What a delicious food! With each new cup I felt my body gaining strength and my spirits rising. For nearly a week this was my only food. In the second week I was able to add to this good Siberian white bread and so started my way to recovery.

Since I come from an old family of beekeepers, and my mother never tired of praising this wonder-food of nature, it is likely that my faith in it had much to do with my speedy recuperation. From now on I felt better from one day to the other; soon I could sit in the open in the warm sunshine and six weeks later I was able to report for work, which meant at that time digging graves for other prisoners of war who had died of typhoid fever. Out of a company of 2100 men 990 died within a period of three to four months. Forever thoughtful that I was not one of them, I gratefully exclaimed: "Honey saved my life!"

New York

Farm Use of Airlanes Spreading Rapidly

A recent story by a staff reporter of the Wall Street Journal* points out that the airplane is bringing fast changes to farming. Although no mention was made of the possible effects of these changes on beekeeping, either beneficial or harmful, it is well that the industry be informed of what may lie ahead. We quote from the article.

"This year more than 7,000 planes, twice as many as five years ago, will swoop over nearly 60 million acres of U. S. cropland, half again more than they covered two years ago. They'll be tending more than one out of every six acres under cultivation, ranging above such diverse croplands as Massachusetts cranberry bogs, tobacco fields in Virginia, Kansas wheatlands, apple orchards in Washington, and almost everything from rice paddies to citrus groves."

According to the article, California boasts the largest number of agricultural aircraft. Besides dropping pest poisons on almost half of the state's total cultivated acreage, they drop weed killers such as 2-4 D, plant rice and extensive acreages of clover and small grain, and fertilize countless crops from the air. They spray cotton to defoliate it prior to mechanical picking, they blow rain drops off of ripe cherries which prevents the fruit from splitting open, and occasionally they are used to shake ripe walnuts out of trees. Airplanes also have been used to desiccate legumes before harvesting the seed crop, to blow warm air down into colder layers on frosty nights, and even to spray hormones on apples and pears which stiffens the stems and prevents the fruit from dropping prior to hand picking.

A farm expert at the University of California is quoted as saying, "The airplane can have an effect on the farm picture much as the trolley and the tractor had in the 1920's. Its introduction has been slow, and the problems are considerable, but it is here to stay. Technical progress is likely to make it more and more necessary."

With about 2300 firms in the United States, ranging from those with only one plane to those with

more than 20, and with use of agricultural aircraft expanding rapidly, this situation likely will bring hardship to beekeeping in certain instances. But perhaps it will have many benefits also. Who can know just what may be ahead?

But we are sure of one thing. Like the general use of insecticides by growers, it is here and it is here to stay and nothing we can do will change that picture, for such is progress.

Our purpose and task must be to cooperate enthusiastically and completely with this change in farm methods. It will be to our best interests to keep abreast of this development; to keep informed of those methods and chemicals which present the least difficulty to our beekeeping operations; and to see that methods are adopted and regulated to the end that our bees receive the least harm. We should always keep in mind that there probably are many bright spots in what may be ahead; that it is possible we may benefit materially from such progress in farming.

* Taken from an article appearing in the March 9, 1954 issue of *The Wall Street Journal*, written by William A. Clark.

Honey for Athletes . . .

The Research Guide, published by Sports College of Canada, in a recent issue carried a long story of the training and track career of Rich Ferguson. Rich Ferguson was the first University of Iowa athlete to win a National Collegiate Athletic Association title when he sprinted across the finish line in the two-mile race at Lincoln, Nebraska, last summer. His record time was 9:02.7. He has eleven records to his credit in college competition and was selected All-American for 1953.

It is reported that great care was taken with his after-workout diet. At such time he took the juice of five or six oranges with some honey mixed in and tried to get lots of protein foods and fresh vegetables. By paying such special attention to the cooling off period and proper replenishment in his diet, Rich was able to work very hard without the resulting fatigue interfering with his studies and other obligations.

The same issue of this publication carries an illustration of Gordon Pirie, great British distance runner who set a new world record for six miles last summer. Pirie is reported to consume two pounds of honey a week for energy.

Bee-Tight Honey House Doors

by Charley W. Moosman

DOORS are an essential part of a honey house, and if they are absolutely bee-tight, so much the better. This is sometimes a problem where the truck dock is inside or with any big warehouse door.

For the past four years, my plane hanger has served as honey house and warehouse as well as hanger. The extracting plant was in one back corner, the area back of the wings was used for super storage,

and the honey, when I had any, was stacked under the wings. Using the hanger in this manner made a bee-tight door a must.

As shown in the pictures, this was accomplished by using a single big unit in front of the plane and a small unit in front of the extracting area. The big unit is forty feet long and about eight feet high, and the small one about eight feet by eight feet. Both have overhead tracks to carry them back and a vertical guide track on each side. They both have cables that run over pulleys to a weight box, so they are counter-balanced and can easily be opened or shut by one man.

Last fall we erected a honey house, something we had planned for some time. It has a truck dock inside and the door, as you can see in the pictures, is about nine feet wide and eleven feet high. This door is also carried on overhead tracks and has a vertical guide track on

each side. Two cables go over pulleys to the weight box which is up in the gable of the building out of the way.

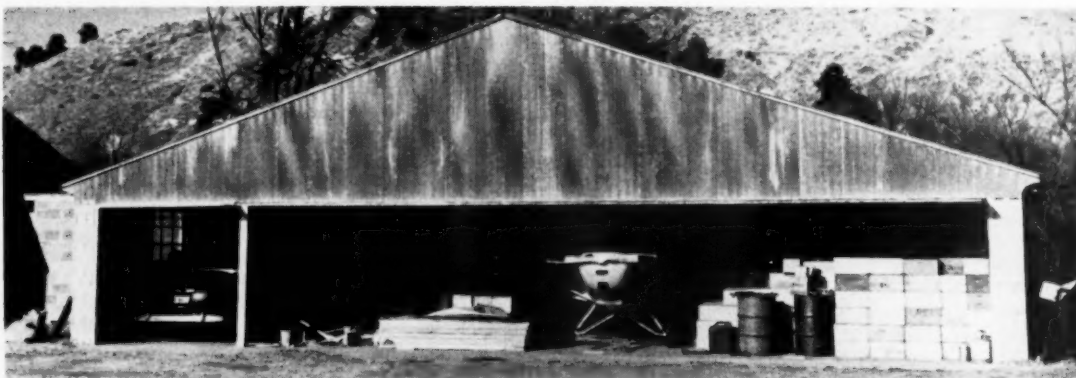
All these doors are bee-tight. They are easy to open and shut and are not moved by the wind when they are open.

Nebraska

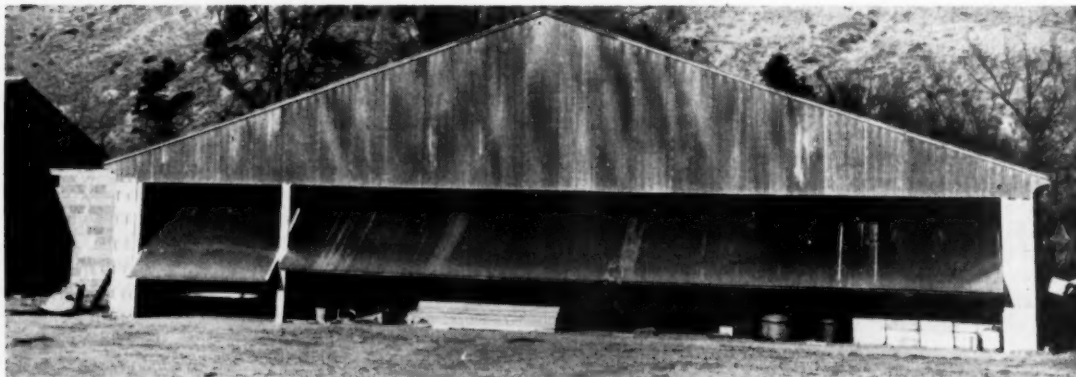
Right: The truck door of the honey house. It is closed and bee-tight.

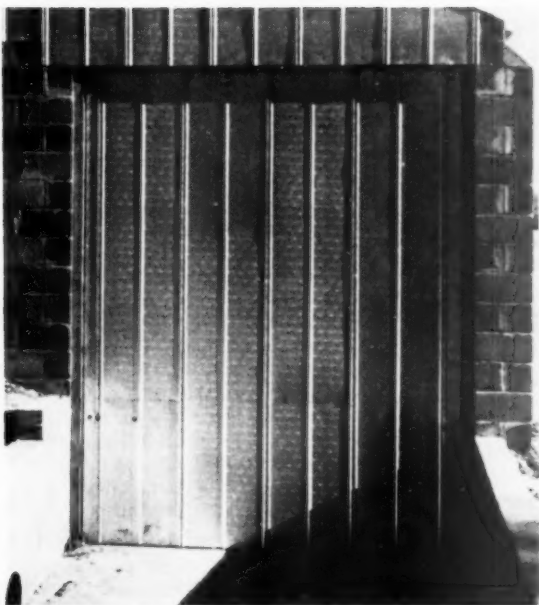
Far right: The truck door is wide open giving plenty of clearance and there is nothing to swing into your truck as you go in and out.

A front view of the plane hanger which served also as honey house. The doors are wide open and up out of the way. Nothing for the wind to bang around.



In this view the doors are half open. They are easily handled by one man because of the counter weight.





Honey Oatmeal Cookies . . .

The cookie jar is almost always empty and it's empty almost immediately when "Honey Oatmeal Cookies" put in their appearance for an all too short a time. The cookies disappear as if by magic. What better recommendation could there be? Watch them closely while baking and avoid possible scorching of the edges.

Honey Oatmeal Cookies

- 1 cup shortening
- $\frac{1}{2}$ cup granulated sugar
- $\frac{1}{2}$ cup California honey
- 2 eggs
- $1\frac{1}{2}$ cups sifted all-purpose flour
- 1 teaspoon salt
- $\frac{1}{2}$ teaspoon soda
- 1 teaspoon cinnamon
- 2 teaspoons grated orange rind
- $\frac{1}{4}$ cup orange juice
- $1\frac{1}{4}$ cups rolled oats

Cream shortening and sugar together thoroughly. Add honey and mix well. Beat in eggs one at a time. Sift flour with salt, soda and cinnamon. Blend into creamed mixture alternately with orange rind and juice. Stir in oats. Drop by teaspoonfuls onto greased baking sheet. Bake in moderately hot oven (375 degrees F.) 10 to 12 minutes, until lightly browned. Remove to wire rack to cool.

Makes about 5 dozen cookies.

California Foods
Research Institute

That Queen Finding Box . . .

I can confirm the queen finding box, described on page 12 in January. We made ours in reverse: that is we had the shallow tray at the top to permit ample light to fall on the bees, and the deep, clustering box at the bottom. This lower box is usually filled with a set of combs to draw the bees quickly down from the excluder surface. With us the top tray is an empty section rack (super) with a zinc excluder cut to fit inside on the slats and secured with cleats at either side. It can be fitted with two plinths (cleats) to keep in place on the lower body. If nectar is plentiful in the combs we find it unsafe to shake or jounce the combs and prefer to feather off the bees with a goose quill.

In case we are trying to find the queens in swarming, sometimes a clipped queen is lost on issuance. We then count the number of cells that are sealed and the number vacated. When the bees have passed through the tray, we should be able to locate and cage the correct number of virgins which normally might leave in afterswarms.

Again, when practicing the Demaree method of swarm control, the bees are passed through the finding tray into the hive of combs below. Then, when the queen is located, she is run into the hive entrance, where

she is with her bees and in the right place. (From a Cotswold Honey Farm, Cheltenham, England. A. H. Bowen.)

Bee Stings

Beekeepers susceptible to bee sting poison can now use an antidote which is obtainable in capsule form from any drug store and will not deteriorate in a reasonable time if kept in tightly stoppered bottles. The drug is a combination of ephedrin $\frac{3}{4}$ grain and amytal $\frac{3}{4}$ grain in the same capsule. An adult can take two of these with entire safety. For quicker absorption, the capsules can be pricked with a pin before being swallowed with water. The capsules should be taken immediately after the sting has been received to lessen the ill effects of the poison. A supply of these capsules may be kept on hand for use in emergencies. This information is from Dr. J. E. Eckert, Apiculturist, University of California at Davis, California.

Dr. Frank Scofield of the Veterinarian College at Guelph has also found that allergic reaction to bee stings can be cured by an injection of a fluid prepared from the entire body of the bee and not just from the venom itself. We may be able to get more information about this from Dr. Scofield later.

You Asked for It...

J. L. Pearson, Hazen, Arkansas

I have four stands of bees, two in nail kegs and two in square boxes. I want to transfer them into standard hives. What is the best method of doing this?

First, set your new hive in the location of the one you want to transfer. Then tear the keg or box apart. Cut the slabs of comb out carefully and shake the bees into the new hive which should have frames of foundation in it. Watch closely for the queen as you work, and place her in the new hive if possible. If you miss her, wait a few days after transferring the bees and then inspect the hive. If you see the queen or eggs everything is all right. If by accident she has been killed or lost you will need to requeen the colony as soon as possible.

Transferring should be done before the queen has started laying very much. Then not much brood will be lost. Feed the colony until natural nectar is coming in. The combs from the old box hive can be melted up into beeswax. Some beekeepers have tried tying the old combs into the frames, but unless you get them tied in exactly like they were in the old hive, the bees won't do anything with them. It is better just to melt them up.

L. E. Richardson, Los Angeles, Calif.

What is a good fumigant for combs of honey that will be effective against moths and will not contaminate the honey?

Several kinds of fumigants are mentioned in bee books but some of them are dangerous to use unless you know the proper method. I have used one called mill fumigant manufactured by a chemical company. It is not dangerous to use. I stack the supers about five or six high, place a small container of the fumigant on top of the stack and cover tightly. It kills moth eggs as well as larvae. This would be all right to use on supers of honey in my opinion. The mill fumigant is used in flour mills for weevils.

Abroad - - -

Insect Flight Speeds

The Transactions of the Royal Entomological Society of London for Oct. 23, 1953, consists of 130 pages with the title "Range and Speed of Flight of Insects," prepared by Prof. Brian Hocking, Associate Professor of Entomology at Edmonton, Alberta, Canada.

The experiments on which the report is based were made chiefly along the Churchill River in northern Manitoba. The nectar supply and the demand at different speed of insects were studied. Included in the experiments were honey bees, tabanids, simuliids, mosquitoes, drosophila; the honey bees and drosophila being used for confirmatory observations.

Practical applications of the findings to aeronautics and apiculture are briefly discussed. There are extensive references and 6 plates with many original drawings. Copies are priced at \$7.00 at the offices of the society in London.

Royalty and the Bees

The Royal cartouche of every Pharaoh from Menes, whose date is said to be about 5000 B.C. to the last of the Ptolemies, contained two symbols; the Papyrus reed which denoted his sovereignty over Upper Egypt and the bee which showed that Lower Egypt was subject to him. From the beginning of history, therefore, the bee has been associated with royalty. This connection has never been lost. Alexander the Great was carried from Babylon to Alexandria in a coffin filled with honey; and the Great Goddess of the East, the Magna Mater, whom we know as "Diana of the Ephesians" bore on her robe a bee and her priestesses were known as "Bees."

When the tomb of the Frankish King, Childeric I, who died in A.D. 481, was opened in 1653, three hundred golden bees were found in his coffin. They were supposed to have been attached to his royal robe and Napoleon, who had heard of this, caused his coronation robe to be covered with golden bees. In Wales, honey, the product of the bees, was the property of the Kings and the Mead Brewer was one of the chief officers of the household.

In England, Alfred the Great sent an expedition to explore the Baltic

Sea and it returned with the news that the inhabitants of the lands which surrounded it had great plenty of honey so that the common people drank mead, not the nobles only, as in England.

Domeaday tells us that certain towns, from long custom, paid to the King dues of honey each year; but in more recent times the only monarch who was closely connected with bees was Charles II who had a royal beemaster, one Moses Rusden, who lived in the next house to the King's Arms in the Bowling Alley near the Abbey of Westminster and kept the King's bees in patent hives in St. James' Park. He published a book in which, of course, the King Bee had a prominent place.

Books about bees have been dedicated to four queens of England: The second edition of Butler's *Feminine Monarchie* to Henrietta Maria, Queen of Charles I; the second edition of Warder's book to Queen Anne; the first edition of Thomas Wildman's book (1768) to Queen Charlotte, the wife of George III; and the second edition of Dr. Bevan's *Honey Bee* to Queen Victoria.

H. M. Fraser

Bees on Detective Work

Allan Findlay, a beekeeper in Stevenston, Ayrshire, runs a few colonies of bees in his back garden. One day last summer his bees were very active, at a time when no honeyflow would be expected in his district. Early next morning the bees were again flying in great numbers and evidently bringing in stores. Puzzled by such unusual activity he set out to find what his bees were doing. They led him down the garden, through the hedge and over to a nearby wood, and there under some bushes he found a great store of provisions, stolen from a local grocery store. Among the goods were some tins of fruit which had been damaged and allowed the sirup to escape. The bees were working on the sirup, and so led the police to the burglar's plunder, which had so far baffled them.

John G. Tanner,
Hayshol, Irvine, Ayrshire,
Scotland

June

for the Beginner

by Frank E. McLaughlin

This is really the time of the year for me. Winter over again, and warm days ahead. Plenty of work in the bee yard, too.

Let's say the beginner has had his bees in the hives for a month or so, and is waiting for the honeyflow. If he has fed his bees after hiving them and taken care of them properly, they should be in good condition to bring in nectar when the main honeyflow starts.

In my locality, the bees have had a lot of good days to work on fruit bloom and dandelion. Most springs the weather is cool and rainy during fruit bloom, but it has been much better this season.

I believe it best for any beginner to start with extracted honey. It takes quite a lot of skill to handle the bees for comb honey, and the beginner not having this experience may let his bees swarm, thereby losing out on the honey crop altogether. To produce comb honey the bees have to be crowded, and if the beekeeper does not know how to handle them they will swarm. If bees are allowed to swarm most of the field bees go out with the queen leaving only hive bees. Then no surplus can be stored.

It takes plenty of food, young queens, good weather conditions, and proper management, plus plenty of honey plants for your bees to store a surplus of honey.

Supers containing drawn comb are of course preferable to use. But in the beginner's case, supers containing full frames of foundation have to be used because no drawn comb is available. Time is valuable when the major honeyflow starts.

It takes the bees a little while to draw the foundation out into comb, however when honey is coming in, it is remarkable how fast the bees can do this. Additional supers should be put on as needed.

A frame of drawn comb from the brood chamber can be placed in the super (if full depth extracting supers are used) replacing the frame in the brood chamber with the frame of foundation. This drawn comb in the super entices the bees to go to work upstairs. Sometimes bees are very stubborn about starting to work in a super of foundation.

It is important to give the bees room when they need it—not before or after they need it—but at the proper time. If the foundation is given them before they need it, I have known the bees to chew up the foundation. Why? Because of the lack of something to do, I guess. If foundation is given too late, the bees, not having any place to store nectar, will get sluggish and quit working, will draw spur comb in the brood chamber, and established colonies, at least, will swarm.

When the honeyflow is at its best, bees have been known to carry in up to 25 pounds of nectar in a day, if the colony was up to peak in every respect.

Some beekeepers use queen excluders between the brood chamber and the super. This keeps the queen below in the brood chamber. She cannot go up in the supers to lay eggs in the super comb.

Beginners who have particular questions or need advice may write to Frank E. McLaughlin, American Bee Journal, Hamilton, Illinois. He will be glad to help you.

You Asked for It...

T. A. Fruitt, Greensboro, N. C.

What is a good method of providing top ventilation in a beehive?

Hives should always have top ventilation. With the small opening in the entrance cleat at the bottom in front and top ventilation, the hive has circulation of air that keeps moisture out of the hive. You can bore a hole near the top of the hive in back or use the following method. On top of the hive bodies place a screen wire cover (screen wire tacked on a frame the same size as the hive) then a frame made of 1 x 2" lumber nailed together like a box. This has three holes bored in the back. Then put on the regular hive cover. This gives the bees plenty of ventilation and in winter two of the holes are closed, leaving one open.

Be sure your hives are tilted a little to the front. If moisture should accumulate in the hive it can run out. Set your hives where they will get some morning sun.

J. F. McVay, Jackson, Alabama

Can you tell me an effective antidote for bee stings?

J. E. Eckert of the University of California tells us of a combination of ephedrin and amytal which is a standard formula among druggists and which probably can be secured from a drug store in capsule form. These are put up in 7½ grain capsules and the amount taken depends on the age and possibly weight of the individual as well as the reaction to the sting that is expected.

While this antidote is effective, it is slower than adrenalin and one should not minimize the need for medical care in the case of persons who go into a coma or state of shock following the receipt of poison from any type of insect.

If anyone is hypersensitive to bee stings, it is best to consult a doctor in regard to desensitization through the injection method. Standard antitoxins for bee stings, wasp stings, and other insect poisons are now available. These antitoxins are made from extracts of the proteins in the body of the insects involved, and not entirely from the poisons themselves.



Mr. Beekeeper of the World for 1953-54

It has become the annual custom of various segments of our civilization to designate some person who has contributed most to the advancement of the interests of some special group or to society as a whole. The beekeeping industry has been lax in such awards, but now has just cause to appoint a member of the profession as "Mr. Beekeeper of the World" for 1953 and 1954. This appointment could be used as a basis for the appointment of an international committee for the selection of The Beekeeper of the Year in recognition of meritorious service.

I was thrilled by the broadcast on the last day of May 1953 that the British Expedition had succeeded in climbing Mount Everest, and was doubly thrilled that one of the two men to reach the peak was a beekeeper from New Zealand. At that time more people heard of our profession at one time than at any other time in the History of Man.

I had the pleasure recently of meeting this New Zealand beekeeper and found that he was interested in the life history and habits of bees and in their contributions to agriculture and to the general economy of the world. Every beekeeper who

--- SHORTS ---

Quality Needed . . .

Since no law can be made to fix a line of demarcation between grades, flavors, qualities, ripeness, overheating and sources of honey, most large beekeepers pay but little attention to these essentials and stress instead uniformity of pack, freedom from foreign substances, and attractiveness of the appearance of the honey and the containers. It is no wonder that honey goes begging at the price of our cheapest food commodities when so little attention is paid to quality. A food may be attractively packed, but if it is not pure and good there will be few repeat purchases. We need to produce better honey.

Joe Marty, Oregon

Fire Losses High . . .

Due to the inflammable nature of beeswax and other beekeeping equipment, we often suffer losses by fire. "Facts and Trends" a bulletin published by the National Board of Fire Underwriters, states that fire losses in the U. S. reached \$903 million in 1953, an all-time high. This was 15.1 per cent higher than 1952.

These losses reflect to a large degree the nation's expanding economy, particularly those insurable values exposed to fire that have increased proportionately and include the result of the disastrous fire last August at the Livonia plant of General Motors Corp.

Last year losses for the month of

has heard of the success of the expedition knows that Edmund Hillary, the New Zealand beekeeper, must be a man of exceptional stamina, intelligence and courage, a man any industry would be glad to claim as its own, and one whom the beekeeping industry could be proud to designate as its Beekeeper of the World for 1953 and 1954. Sir Edmund and other members of the expedition give credit for their success to the combined efforts of all who took part in it, but in the final assault, there were times when only the indomitable will to win and a vast amount of courage and skill in the face of danger helped to overcome the obstacles that confronted Sir Edmund Hillary and his companion the Sherpa Tenzing.

J. E. Eckert,
University of California

December were particularly heavy. The estimates include an allowance for uninsured and unreported losses.

Let's be sure that our honey houses and beekeeping equipment are adequately protected with fire insurance in case of loss.

Studies in Red Clover Seed Production . . .

Reprint from Canadian Journal of Agricultural Science 33: Sept.-Oct. 1953, authors E. Braun, R. M. MacVicar, D. R. Gibson, P. Pankiw and J. Guppy, Canadian Dept. of Agriculture.

Red clover seed production as related to insect control, pollination and nectar secretion.

DDT and Toxaphene controlled the pea aphid and tarnished plant bug but the control of these insects did not result in increased seed yields. They failed to control the red clover seed midge. Populations of honeybees and bumblebees varied from day to day and were higher in the afternoon. With two colonies to the acre, the ratio of honey bees and bumblebees was 2.2 to 1. The number of honeybee pollinators decreased as the distance from the apiary increased and the greater the number of honeybees the greater the seed yield. Seed yield decreased as the distance from the apiary increased. There was a great variation in the amounts and kinds of pollen gathered by individual colonies. Red clover pollen collections ranged from 11 to 71 per cent. On the basis of all pollen gathered that of red clover was third in importance being 24 per cent of the total weight. Day-to-day comparisons showed that the amount of this pollen collected increased from 4 to 83 per cent from the first to the last day of the test. The insecticides used did not cause pollinator mortality. Maximum pollinator efficiency can be obtained only if the colonies are dispersed throughout large fields.

IT HELPS . . .

When bees want to secrete wax let them draw foundation and so help to prevent swarming. Newman Lyle, Sheldon, Iowa.

BROOD, IT IS . . .

For a maximum crop, it is not the most bees that count so much, as the most brood near flow time. Newman Lyle, Sheldon, Iowa.

From Here and There



Florida

These two pictures are from Paul Cutts, Chipley, Florida, showing unseasonable snow for the western arm of Florida during early March this year, just at the time when the breeders are getting in good licks at preparation for their package business. It is unusual to see a snow covering automobiles and piling up around beehives at this season.

Cutts says "The snowfall was the heaviest in 59 years. Imagine weather like this when we had our first cells coming on. Then the Florida sun came through and the snow melted and the nuclei were made. The cells were saved with the help of a hot water bottle."

Saw Palmetto and Mangrove In Southwest Florida

Marcel De Snell, of Brussels, Belgium, recently asked about these two honey plants in Florida and John D. Haynie, Extension Apiculturist, answered him. We quote from the letter which Mr. Haynie sent to Mr. De Snell, a copy of which was forwarded to the Journal.

"There is quite a bit of black mangrove from Tampa to Fort Myers. This, of course, you will find along the Gulf Coast. Bees are being moved to the mangrove at the

present. Then, there are also saw palmetto locations in the same area but back several miles from the coast. In general, the section is much better for mangrove than it is for saw palmetto along the coast. Saw palmetto and gallberry (*Ilex galbra*) are also found growing in sections together and both are about ready to secrete nectar at this time. Back from the coast for some distance, saw palmetto, the largest single nectar producing plant, is well suited to the area and flourishes.

"Black mangrove is rather uncertain, yielding well about one out of every three years. You should have no trouble in producing saw palmetto and gallberry mixed and mangrove in different sections of the area south of Tampa and even down as far as the Keys. Down below the mainland of Florida, on the Keys, there isn't much saw palmetto but mostly mangrove areas. You will find the red and black mangrove pretty well mixed up along the coast. Of course, the red mangrove does not yield and the black mangrove is the main nectar producing plant."

California

Rubber Stamp Advertising

The Los Angeles County Beekeepers Association has instigated a novel method of inexpensive honey

advertising. Using the slogan "Eat Honey More Often" as advocated by the California Honey Advisory Board, and a picture of a honey bee, an attractive rubber stamp has been worked out which is being used as a return address stamp on beekeepers' outgoing mail. The stamps are made up in two ways—either complete with name and address, or plain for use with printed envelopes.

The Association will be glad to supply any beekeeper with one of these rubber stamps at the very nominal cost price of \$3.25 (with 3 line return address) or \$2.25 (plain), payable in advance. This price includes tax and postage charges. Send your orders to Clark R. DeCoux, 860 W. Calaveras Street, Altadena, California, making all checks payable to Los Angeles County Beekeepers Association.

Let's keep our slogan in front of the buying public, and what better way is there to do this than through the mail?

Clark R. DeCoux, Sec.

New Jersey

Committee Chairmen

The New Jersey Association announces that President Eberle has selected these chairmen for the various committees:

Research Committee: Robert Fil-

mer, 103 Lawrence Ave., Highland Park, N. J.

Publicity: Henry Niedengard, 211 Pershing Road, Clifton, N. J.

Membership: Curtis Wightman, Morristown, N. J.

Public Relations: Earl Sutvan, 912 Lakeview Ave., Laurel Springs, N. J.

Program: Rudolph Patzig, Box 149, Bedminster, N. J.

Good News

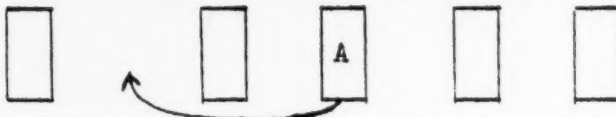
Friends of Mr. Holcombe will be glad to know of his rapid recovery from a recent operation. Paul is now home convalescing and hopes to be back on the job soon.

A Tip to the Ladies

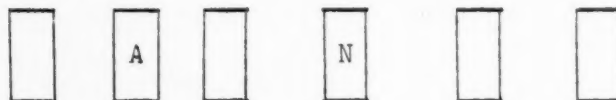
The New Jersey Association ladies,

if they follow the advice of Rudolph Patzig in the New Jersey Association Newsletter, will begin thinking about the honey cookery entry in the next October Association Annual Banquet and Cookery Contest at New Brunswick. Patzig says: "Between now and then you can try out many of those fine honey recipes and decide the one you want to enter in the contest. It's really fun—win or lose. There are four prizes in five classes, making a total of 20 prizes in all and you may enter more than one class. It's a real thrill to be a winner. We'll keep reminding you about it in the 'News' but let's get behind the contest to make it the biggest ever."

Colorado



Colony A, containing swarm cells, is moved to new position.



Colony N, containing a laying queen and her brood from a nucleus, is placed on the original location of colony A. Colony N receives colony A's field bees. Colony A destroys its swarm cells.

Change Location of Colony to Prevent Swarming

Ben Knutson, of Alamosa, Colorado, prevents swarming by a variation of the reversing method. Whenever Ben finds a colony which has swarm cells, he puts it in a new location. A nucleus containing a laying queen is then placed on the former location of the colony. The nucleus catches the field bees of the swarm-prone colony.

The colony which has been moved suddenly finds itself short of field bees. It then proceeds to destroy the queen cells and decides to gather honey instead of swarming. Ben says it is not necessary to destroy the queen cells, as the colony will take care of them after it has been moved.

The field bees returning to the nucleus give it enough strength so

that it will be a good colony. Therefore, the plan is also a method of increasing colony numbers. When desired, a weak colony can be placed in the old location of the colony instead of a nucleus. Ben uses a hand truck with large rubber wheels to reverse his colonies.

from "Bee Notes"
Colorado Association

Nebraska

J. Howard Wagner, of Grand Island, Nebraska, sends a clipping about dust and snow in middle March in western Nebraska. The particular item was a raging dust storm. The results of these storms, which were not only in western Nebraska but also in Colorado and even in farther eastern sections, was

a smudge of very dirty covering which was washed off by either rains or snow in the form of muddy precipitation. In this particular instance, as reported by Mr. Wagner, there were winds up to 60 miles an hour and farther west 82 miles an hour reported in Wyoming. The dust in Colorado was the worst in years.

One man at Sterling, Colorado was lost in a blinding dust storm for 9½ hours, from 4 p.m. one day to 1:30 the next afternoon, before he finally reached a farmhouse. He suffered only exhaustion and facial pitting from sand and dust.

Wisconsin

Wisconsin Beekeepers Lead

Henry Schaefer is again president of the American Beekeeping Federation. Howard Dankemeyer takes over the Bee Industries Association. Mrs. Henry Schaefer is president of the National Womens Auxillary of the Federation.

(from "Badger Bee" April)

Bee and Honey Display at the State Fair

The State Fair Committee met with the management of the State Fair and agreed to the following:

1. The space occupied by the state association in 1954 will be the same as in 1953.
2. The Fair Management will again pay the state association \$500 for an educational display.
3. While independent beekeepers may rent space anywhere on the fairgrounds to sell their products, no honey will be permitted to be sold in or near what is known as the old honey building during the 1954 fair.
4. The old honey building is in line to be destroyed. After this building is removed the last part of rule No. 3 will be void.

John F. Long, chief of the State Bee and Honey Section of the Department of Agriculture, will be in charge of the educational display this year. The state association's elected officers will solicit bids and award contracts for the supply of honey needed at the fair booth. Art Kehl, of the G. B. Lewis Co., Watertown, will again take charge of the sales program and personnel.

Rock County Officers for 1954

Officers for Rock County are: secretary, Mrs. Wilbur S. Mong; treasurer, Mrs. Don Williams; president, Marcus L. Osborne; vice president,

P. S. Riesterer; and trustee, Wilbur S. Mong.

Dane County Officers Elected

Officers for Dane County are: Harry Hayes, Madison, president; Stanley Otis, Madison, vice president; and Earl Blizard, Verona, secretary-treasurer.

The Brambles

S. W. Bramble, Wisconsin Rapids, with his wife, operates 100 colonies of bees mostly for pollination of cranberries. His regular job is that of a power house operator for the Consolidated Water Power & Paper Company, of Wisconsin Rapids, but it is shift work, the hours changing from week to week so he always has some time for bees. He started placing bees in cranberries five years ago and the demand for them has steadily increased. His main trouble is careless use of insecticides especially from planes in wind.

Michigan

Michiana Association Elects

On March 21, Willard Phipps, 233 E. Gilman St., South Bend, Indiana, was elected president, Owen Martin, Rt. No. 4, Elkhart, Indiana, secretary of the Michiana Association.

Tennessee

The regular meeting of the Walker County Association at South Ross-ville brought an attendance of 49, the best meeting yet. There was an observation hive, a package of bees on display and two films, one "The Indispensable Bee," the other "Dedicated Men."

Frank Blakemore, President

Utah

"Growing Alfalfa Seed Without Destroying Pollinators"

Extension Circular 155, Utah Agricultural College, by George F. Knowlton, discussing the killing of honey bees because of the use of agricultural poison, suggesting that "when control programs are properly planned and applied, it appears there is less need for risks from insecticides than formerly." Increased numbers of honey bees, wild bees, and higher yields will frequently follow well-timed DDT treatments for lygus and other insects, also the use of many insecticides on bloom have killed great numbers

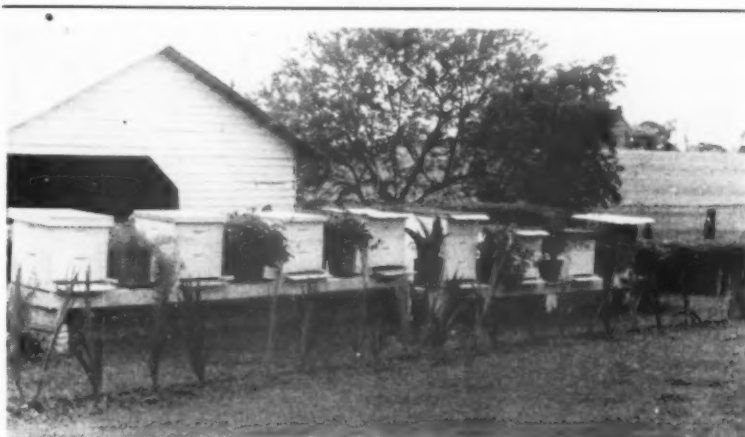
of bees. The circular discusses proper procedure in the use of chemicals to avoid killing essential pollinators.

Also Extension Circular 212 "Safe-guard Bees During Orchard Spraying," by George F. Knowlton gives point by point procedure for safety precautions in the use of insecticides.

"Raising Bees"

George F. Knowlton is author of Extension Circular 157 "Raising Bees," published by the Utah State Agricultural College. It gives suggestions for new beekeepers; how to begin, when to begin, what equipment to get. For a two-page bulletin, it is just packed with facts.

North Carolina



Beauty

Picture by W. A. Stephen showing the apiary of W. W. Suggs, Rutherford County, taken in 1949. Seldom does one see such attention to beauty in an apiary. Most of us commercial fellows use just about anything. Don't even have straight lines, no flowers, no shrubbery, no care. Just bees set out for production, almost any old way.

But the small beekeeper gets greater joy and comfort out of his bees when he has them surrounded by some element of care and comfort and beauty such as this apiary of Mr. Suggs. Also notice that his bees are up high enough to work without getting a beekeeper's back and he has something unusual in beautifying and that is potted plants between the hives. We have never seen this before anywhere.

Missouri Association, A. C. Schwinke received the attendance prize, a copy of the Killion book, "Honey in the Comb." Usually the prize is a secret and so interest is thereby that much keener.

W. N. Snyder, Secy.-Treas.

Arkansas

New Officers

At the meeting at Jonesboro at the Arkansas State College, the North East Arkansas Association elected E. E. Turner, of Vanndale, president; Fred Rogers, of Corning, vice president; and Miss Patsy Waddell, Powhatan, secretary.

Manitoba

"Diseases of Honey Bees"

"Diseases of Honey Bees" (title of Publication No. 268 of the Manitoba Department of Agriculture and Immigration at Winnipeg, authored by D. R. Robertson, Provincial Apiarist) contains the usual description and methods of inspection for American foulbrood, European foulbrood, sacbrood and illustrations for the diseases with methods of treatments.

Missouri

Eastern Missouri Beekeepers

Eastern Missouri beekeepers miss a great deal by not attending meetings regularly. There may not always be a prominent speaker but there are always many beekeepers with experience and information.

At the last meeting of the Eastern

EARLY PACKAGES — EARLY QUEENS



Reg. U.S.
Pat. Off.

	2-lb. with Queen	2-lb. with Queen	Untested Queens	Starline Queens
1-24	\$1.30	\$4.30	.90	\$1.40
25-99	3.05	4.05	.80	1.30
100 up	2.95	3.95	.70	1.20

For Packages with Starline Queens, add 25c.

J. M. CUTTS & SONS Box 336 Chipley, Florida

QUEENS

Italians of the George W. Moore strain, personally raised and purely mated, for the remainder of the summer at 60 cents each.

HANSON, HALL BEE CO.
Livingston, Alabama

— HONEY WANTED —

CARLOADS AND LESS THAN CARLOADS
Send samples and quote best cash price delivered to us. All grades.

HONEY SALES COMPANY

1806-08 No. Washington Ave.
Minneapolis 11, Minnesota

ITALIAN PACKAGE BEES and QUEENS

John S. Shackelford
Rio Oso, California

"Originators
of Frame-Grips"

Send Now to
McCORD MFG. CO.

Rt. 2, Box 366, San Jose, Calif.

Positive Grip
Through the Lever-
age Action of this
strong Aluminum
Frame-Grip.

DELUXE \$2.75
UTILITY \$2.45
Plus 33c postage
fee.

Also obtainable from your
leading Bee Dealer.
Don't accept a substitute.

"The Hive and the Honey Bee"

The modernized reworking of the book started by Langstroth many years ago. The basic how-to-do-it book of today, with sixteen collaborating authors, 650 profusely illustrated pages. \$4.00 postpaid.



AMERICAN BEE JOURNAL
Hamilton, Illinois

REFLECTORIZED SIGNS

Beaded in glass—shines at night—
Heavy metal, 14x20 inches, black on
yellow. Flanged one end to nail on
post or tree. New—different!!! Say
"Honey" both sides. Each, \$2.50.

Dadant & Sons, Inc.

Hamilton, Illinois

ITALIAN QUEENS

75c each - Air Mail

No packages.

O. K. ANDERSON & SON

Box 193, Coffee Springs, Alabama



CAUCASIANS CARNIOLANS

Will meet every need
of the beekeeper. Both
races have longest
tongues, build white
combs, gentlest, build up rapidly in
spring. Untested queens by air mail
from Florida yards—\$1.20 each.

Send orders to Tenn. address.

Ready here June 15th.

W. D. REAMS

Route 5 Morristown, Tenn.

UNUSUAL

Queens and Packages for '54.

D. T. WINSLETT

7736 Auburn Rd.
Citrus Hgts., Calif.



DeLuxe

Spring
Action

FRAME GRIP NO. 400

For easy handling of hive frames get
the new spring action Afcolite Frame
Grip. Heavy cast Aluminum. Prompt
shipment. Satisfaction guaranteed.

Only \$2.50 at your dealers or will
ship direct at 25c for handling and
postage.

AFCOLITE CORP. 1234 No. Paulina St.
Chicago 22, Illinois.

Seifert and Mann . . .

We have been advised through
State Apiary Inspector Killion of
Illinois, that an application for li-
cense as Commission Merchant,
Dealer, or Broker in the State of
Illinois by Seifert & Mann has been
refused by the Illinois Department
of Agriculture and that any con-
tinuance of the operation of that
firm is in violation of the statutes
of the State of Illinois and subject
to the penalties provided therein.

Mr. Davis Foreman, Superintendent
of the Division of Markets at
Springfield, states that it would be
most helpful to them that any in-
stances of solicitation on the part
of Seifert & Mann be reported and
will receive the prompt attention of
the Division as above. It is their
firm intention to prevent any re-
currence of previous conditions.

The firm of Seifert & Mann have
been operating with the address of
86 South Water Street, Chicago 6,
Illinois.

Bees Increase Cotton Yields . .

America's most important plant-
pollinating insect, the honey bee, in-
creased irrigated cotton yields by 22
per cent in recent cage tests at the
U. S. D. A. Southwestern Bee Cul-
ture Laboratory, University of Ari-
zona, Tucson, Arizona. Unlike other
crops that rely on pollinating agents,
cotton is self-fertile. The stigma of
cotton flowers is surrounded and in
contact with the pollen-bearing an-
thers, a natural situation that would
appear to make the bee's visitation
unimportant. But cotton plot tests
carried out by entomologists and
plant breeders in cages that either
included or excluded honey bees,
showed that bees carrying pollen
from flower to flower caused more
bolls to set on a plant—and to set
earlier—and boosted the number of
seeds in each cotton boll. The re-
sult was more cotton lint per acre.

In tests made on Pima S-1 variety
cotton, results showed that cages
containing honey-bee colonies yielded
a total of 12,127 grams of cotton
lint, without bees only 9,736 grams.
Boll samples showed that honey
bees increased average boll weight
by a third of a gram; increased
the number of seeds per pod from
20.9 to 22.7, and lint weight in-
creased from 1.24 to 1.37 grams.
Without bees, only 29 per cent of
early flowers developed into bolls,
with bees 48 per cent developed. The
next step will be to determine if or
how bees can confer this benefit
under field conditions.

**For Increasing Your Income
Raise Comb Honey**

Use the
LOTZ SECTIONS

- Top Quality
- Minimum Breakage
- Smooth Dovetails
- Accurate Dimensions
- Clear Bright Finish

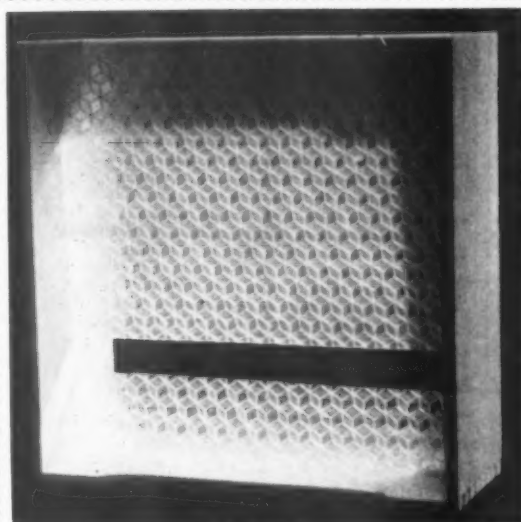
— **ALSO** —

Complete Line of Bee Supplies

Write for Price List

August Lotz Co.

Boyd, Wisconsin



Dadant's Thin Super Foundation

Made of light colored capping wax with a fragrant odor. Section comb honey made from it is a delightful product enjoyed by the most particular persons. The foundation becomes a part of the honey. Each sheet is dainty, clear and delightful. There is so little mid-rib that it is scarcely noticed when the honey is eaten. There is no market as good as that for fancy comb honey but only well graded, select sections command the respect of the buyer.

DADANT AND SONS, Inc.

Hamilton, Illinois
Paris, Texas

Hahira,
Georgia

Dealers
Everywhere

Always Best

Ahead of the Rest

BERRY'S "OLD RELIABLE" STRAIN OF ITALIAN BEES

Definitely, the **PREFERRED** stock of **MAJOR SUCCESSFUL HONEY PRODUCERS** the **WORLD** over. **INSURE** your crop with young, vigorous, producing, **DEPENDABLE BERRY BEES**. Fifty-nine years of **SELECT** breeding.

Prices after June 1st:

Package Bees With Queens and Individual Queens

	Queens	2-lb. Pkg.	3-lb. Pkg.	4-lb. Pkg.	5-lb. Pkg.
1-24	\$.75	\$2.60	\$3.60	\$4.60	\$5.60
25-99 .....	.70	2.55	3.55	4.55	5.55
100 up .....	.65	2.50	3.50	4.50	5.50

For prices on queenless packages deduct price of queen.

M. C. BERRY & SON

Montgomery, Ala.

P. O. Box 684

ET'S GET TOGETHER

Illinois State Beekeepers Assoc. PROGRAM SUMMER MEETING

The Illinois State Beekeepers Association summer meeting will be held at the City Park, Herrin, Illinois, July 24 and 25, 1954.

Reservations for the banquet must be in on or before July 15, 1954, at \$2.50 per plate. Send check or money order for the number of tickets wanted to H. E. Dale, R. F. D. 1 Box 5, Herrin, Illinois. By return mail you will receive your tickets. Your cooperation will be appreciated in this matter.

Saturday, July 24, 1954

- A. M.
- 10:00 Registration.
- 11:00 Carl E. Killion, Paris, Illinois, Chief Apiary Inspector.
- 11:30 George C. Nagel, St. Louis, Missouri. The Manner in Which Honey Was Used in Ancient Times.
- 12:00 Noon Adjourned for Lunch.
- P. M.
- 1:30 Prof. V. G. Milum, University of Illinois. Let's Consider Fundamentals.
- 2:00 Charles Dadant of Dadant & Sons, Hamilton, Illinois. Marketing Honey.
- 2:30 Dr. Leonard Haseman, University of Missouri. How to Control A. F. B. with Sulfa.
- 3:00 Recess. Hiving of a Three-Pound Package of Live Bees.
- 3:30 G. H. (Bud) Cale, Jr. of Dadant & Sons, Hamilton, Illinois. Queens of the Future.
- 4:00 Walter T. Kelley of The Walter T. Kelley Co., Clarkston, Ky. Demonstration of His New Hive Loader.
- 4:30 John W. Buchanan, Sales Manager, A. I. Root Co., Medina, Ohio. Beekeeping and Today's Youth.
- 5:00 Dr. James B. Mowry, Director Illinois Horticultural Experiment Station, Southern Illinois University. Fruit Setting and the Role

of the Honey Bee.

5:15 H. H. Fulkerson, Farm Adviser of Williamson County, Illinois. 5:30 Panel Discussions and Questions and Answers. 6:00 Adjourn for the banquet in the Gold Room, Lymar Hotel, Herrin, Illinois, at 7:00 P. M. Color film to be shown.

"BEES FOR HIRE" shows pollination for a generous amount of its total sequence and then moves into the hive for a look at the ladies who make this modern farming method possible. Then what follows is an exciting twenty minutes of wild life footage. No film has ever made such an extensive study nor succeeded in capturing as much of the bee's entire life at work. Some of the new information about the language of the bees and their way of communication is also covered by this film in color.

Sunday, July 25, 1954 TOUR

A look at the rugged, scenic beauty of Southern Illinois will be available to you in a tour which will begin at 8 A. M. Sunday morning.

Leaving Herrin we will first visit Crab Orchard Lake, southern Illinois' top recreational spot and "America's Gun and Dog Capital." This lake has a 125 mile shore line and is a haven for area and outside fishermen, boaters, picnickers and sightseers.

Then we will travel south to see one of Crab Orchard's sister lakes, Little Grassy, which is a favorite fishing spot.

From Little Grassy our trip will lead us to Giant City State Park in the Illinois Ozarks before we reach Southern Illinois' great fruit belt around Cobden, Alto Pass, Jonesboro and Anna. Peaches should be ripe at this time.

From Anna, Illinois, the motorcade will go east to West Vienna, then north a few miles to Scenic View near Buncombe where you will be able to see a vast panorama of the surrounding countryside.

Marion, Illinois, the county seat of Williamson County, is last on the itinerary before returning to Herrin, Illinois.

Hotel Reservations

For overnight reservations write: Lymar Hotel, Herrin, Illinois.

Herrin Hotel, Herrin, Illinois.
Moderate Rates.

All beekeepers and their friends cordially invited.

The Committee.

1954 National Honey Show St. Paul, Minn., August 28-Sept. 6

The American National Honey Show will be held this year from August 28 to September 6 in connection with the Minnesota State Fair at St. Paul, Minn. It will be sponsored by the American Beekeeping Federation. Following the successful fair of last year, it is hoped that the entries as well as the prizes and trophies will be increased. Anyone interested should write to C. D. Floyd, Superintendent, University Farm, St. Paul, Minn.

Short Course Pennsylvania State College August 16-21

A beekeeping short course will be conducted at the Pennsylvania State College at State College, Pa. from August 16 to 21, 1954. One-half of each day will be given to lectures on the theory of beekeeping, and the other half devoted to the practical application of bee management. The course is planned to aid those interested in beekeeping to increase their income or to render service where pollination is required.

Emphasis will be given to spring management, swarm control, queen rearing, disease control, and the marketing of honey. For further information and an application blank, write to A. Leland Beam, Director of Short Courses, College of Agriculture, State College, Pa.

Westchester County Beekeepers Assoc.

Dover Plains, N. Y., June 20

The Westchester County Beekeepers Association will hold its next meeting on Sunday, June 20 at 2:30 P. M. through the kind invitation of Walter B. Crane at the Dover Hills Apiaries at Dover Plains, N. Y. off Route 22. Bring a picnic lunch if you come early. All beekeepers in this area are invited to attend and join us in a beekeepers' field day.

Carlton E. Slater, Publicity

Middlesex County Beekeepers Assoc.

The Middlesex County Beekeepers Association will hold its second outdoor meeting at the home of Dr. and Mrs. Herbert Anderson, 184 Ridge Street, Winchester, Mass. At the first outdoor meeting held on May 22, a large group gathered at Mrs. Fitzgerald's in Weston. Her beehives were opened and inspected, as was the Club Hive. This hive will be moved to each outdoor meeting place through the summer so that we may watch its progress.

L. C. Proctor, Sec'y.

Connecticut Beekeepers Assoc. Litchfield, June 26

The summer meeting of the Connecticut Beekeepers Association will be held June 26 at the Parish House of the Litchfield Congregational Church in Litchfield on Connecticut Route 25. Speaker for the morning session will be Rudolph Freund, artist, who will speak on conservation and wildlife. Featured attraction in the afternoon will be the beekeeping exhibit at the Litchfield Historical Society Museum in the Library on the south side of the Litchfield green. This collection of many antique items in beekeeping should be of much interest to beekeepers and others. Several collections of honey-pots will be on exhibit for the day.

Lunch will be potluck, with coffee furnished. A cordial welcome is extended to all who would like to hear a talk relating to wildlife and see the exhibit of beekeeping antiques.

Philemon J. Hewitt, Jr.,
Chairman of Publicity

Annual Field Meet Eastern Missouri Beekeepers Gray Summit, Mo., June 13

This annual field meet will be held on June 13 at the Trail House of the Missouri Arboretum located at Gray Summit, Mo., approximately 35 miles west of St. Louis. Either highway 50 or 66 will lead you to the Arboretum's entrance and markers will show the location of the Trail House. This is one of the choice picnic grounds within miles of St. Louis. The field meet is open to the public, so feel free to invite your friends. The association will provide cold drinks and ice cream at no charge. Bring your picnic lunch as there are no lunch booths available. We also ask each group to bring a little extra food for guests who may not have a lunch with them. Registration fee will be \$1.00 for persons 16 years of age and over. This is used to defray

expenses of refreshments, rental of equipment and attendance prizes.

August P. Beilmann, superintendent of the Arboretum, will conduct a guided tour to many of the most interesting spots. This will leave the Trail House at 10 A. M. daylight savings time and will take about two hours. Come dressed to do some walking.

From 1 P. M. to 2 P. M. there will be a demonstration by George L. Hankammer of equipment mostly of his own design. From 2 P. M. to 3 P. M. there will be a speech by Dr. Leonard Haseman of the University of Missouri. At 3 P. M. we will inspect an organized colony of bees located nearby. At 4 P. M. there will be installation of a package of bees into a new hive. These are "Mountain Gray" Caucasian bees raised by the Stover Apiaries, Mayhew, Miss. At 4:30 P. M. there will be drawings for attendance prizes and at 5 P. M. the white elephant drawing. Each lady should bring some article she wants to get rid of for this event.

The above schedule is tentative and subject to change if necessary. All times given are daylight savings time.

W. N. Snyder, Sec'y.

Ohio Summer Meetings, 1954

In order to afford all Ohio beekeepers an opportunity to attend a state meeting, three meetings are being held by the Ohio Beekeepers Association this year. The first will be held with the Logan County Beekeepers Association on Sunday, July 11. The place will be announced later. This will be their annual Picnic Dinner. Beekeepers of north, west, and central Ohio are particularly invited. At this gathering the first part of a plan to select a Honey Queen for Ohio for 1954 will be put into effect. Three regional Honey Queens and their runners-up will be chosen at the three meetings. Girls wishing to compete must be between the ages of 15 and 22 and the bonafide relative (wife, daughter, sister, or mother) of an Ohio beekeeper. Appearance and personality will count equally and a handsome trophy will be awarded the final winner. She will appear on television, radio and other honey promotional programs during the summer and in October. It is hoped that free-will offerings taken at the three summer meetings will cover her expenses. The appearance of our Ohio Honey Queen will be well repaid

with extra honey sales.

On Saturday, July 24, a similar one-day meeting will be held at Chillicothe on the premises of the Livestock Producers Association on South Watt Street. Here also a regional Queen and her runner-up will be chosen to compete at New Philadelphia on Saturday, August 7, for the honor of being Ohio's first Honey Queen. A banquet will be held the evening of July 24. At all three meetings a varied program is planned. Reservations for the banquet should be made with the state Secretary, R. L. Livermore, Box 13, Bellecenter, Ohio, at your earliest convenience.

The Tuscarawas County Beekeepers Association will be hosts for the final summer meeting on Saturday, August 7, at a full day's meeting at New Philadelphia. A good program and banquet are planned. As part of the evening program the 1954 Ohio Honey Queen will be chosen. All three regional Queens and their runners-up will be present as our guests. Those who plan to attend the banquet should mail their reservations to R. L. Livermore at the above address. Please watch the bee journals and newspapers for programs to be published later.

H. R. Swisher, Pres.

Minn. - N. Dakota

Detroit Lakes, Minn., July 23-24

The Minnesota and North Dakota Associations will hold their annual summer meeting at Detroit Lakes, Minn., on July 23 and 24.

A pot luck picnic lunch will be served on the 23rd and the Minnesota association will select a Minnesota Honey Queen for the first time at this meeting. Details and entry blanks are available from the Secretary's office for the Queen contest.

Robert Banker, Sec'y.

International Congress and Tour

The official program for the Congress has been issued. There will be 23 papers given in English. One day will include a tour of North Zealand, visiting the Bee Research Station. Registration for the Congress will be August 30 with an official reception that night at 7 P.M. The program will begin August 31 and continue through September 4. For complete details write Mrs. W. A. Stephen, c/o Patterson Travel Service, 208 West Morgan Street, Raleigh, N. C. The tour has been well planned with an eye to expense and will be the trip of a lifetime for those attending.

The Market Place . . .

BEEES AND QUEENS

YELLOW ITALIAN BEES—Real producers. Health certificate. Satisfaction guaranteed. 2-lbs. with queen, \$3.50; 3-lbs., \$4.50; 4-lbs., \$5.50. Queens, \$1.00. Airmail postpaid. O. E. Brown, Rt. 1, Asheboro, N. C.

LARGE ITALIAN QUEENS—Shipped Air Mail, 1-9, \$.85; 10-24, \$.80; 25 up, \$.75. Gaspard Bee Company, Hessmer, La.

CAUCASIAN QUEENS—Personally raised, very hardy, long lived, good honey gatherers, gentle. Young laying queens, \$1.10; 10 or more, \$1.00 each. Fred Brock, McDonald, Tenn.

NORTHERN ITALIAN QUEENS—Ready June 25th, \$1.00 each; 10 up, 90c. Shirl Baker, Rodney, Mich.

CAUCASIAN QUEENS \$1.00 each. C. B. Eppling, "Idlewild," Covington, Va.

THREE-BANDED ITALIAN bees and queens. Good workers and very gentle. 2-lb. with queen, \$3.00; 3-lb. with queen, \$4.00. Select untested queens, 1 to 25, \$1.00; 25 to 50, 90c; 50 up, 80c each. Dadant's new 4-way Starline Hybrids, 1 to 25, \$1.40; 25 to 99, \$1.30; 100 up, \$1.20. For Starline queens with packages add 25c per package. Alamance Bee Company, Geo. E. Curtis, Mgr., Graham, N. C.

TWENTY-ONE YEARS OF BREEDING. Jersey queens for bumper crops. \$1.00 each. Milton Stricker, Rt. 1, Annandale, N. J.

LIGHT 3-BAND ITALIAN bees and queens—3-pounds with queen, \$4.50; 5-pounds, \$6.40. Queens, 80c. Bees shipped prepaid. Luther Pickett, Orange Bee Co., Effand, N. C.

GOLDEN ITALIAN bees and queens—Real beauties and gentle to work with. 2-lb. with queen, \$3.00; 3-lb. with queen, \$4.00. Select untested queens, 1 to 25, \$1.00 each; 25 to 50, 90c; 50 up, 80c. Satisfaction guaranteed. Carolina Bee Farm, Graham, N. C.

GOLDEN ITALIAN QUEENS—60c each. We guarantee live arrival and health certificate. Allen H. Gauthier, Hamburg, La.

CAUCASIAN BEES AND QUEENS—Extra good workers and very gentle. 2-lb. with queen, \$3.00; 3-lb. with queen, \$4.00. Select untested queens, 1 to 25, \$1.00 each; 25 to 50, 90c; 50 up, 80c. Black River Apiaries, Currie, N. C.

GOLDEN ITALIAN QUEENS 60c each. For large, gentle and good yellow bees requeen with our golden Italians. Their bees are excellent honey producers and pollinators. We guarantee satisfaction, live arrival, no disease. Alvin J. Ducote, Hamburg, La.

CAUCASIAN AND CARNIOLAN BEES—2-lb. pkg., \$3.00; 3-lb. pkg., \$4.00. Untested queens, one, \$1.00; one hundred, \$75.00. Tillery Brothers, Greenville, Ala.

FOR SALE

COMPLETELY RECONDITIONED Bogen-schutz uncapping machine for sale at reasonable price. If interested, please contact Sioux Honey Association, Sioux City, Iowa.

537 colonies of bees, average 2 deep, 1 Modified, 1 shallow. Excellent extracting equipment, \$6,000.00 cash. Mrs. Tyra Fulton, Trinity, Texas.

TWO ELECTRICAL heating irons for Filofilm, near new, cost \$50.00, for \$25.00. Also 300 shares preferred Finger Lakes Honey Co-op stock. Mrs. Roy Rabbitt, Chateau, Mont.

2 used 2-frame reversible extractors—1 Kelley \$35.00 and 1 Lewis \$25.00. Both in good condition. Don Miller, 3846 Orders Road, Grove City, Ohio.

FOR SALE—3-frame not reversible honey extractor, good condition, \$13.50. Fred Peterson, Eldora, Iowa.

FOR SALE—100 cases new 5-lb. glass jars, 45-frame Root extractor, 3 h.p. steam boiler, Neises clarifier and filter. E. V. Reinert, Tracy, Minn.

FOR SALE—100 colonies bees, 10-frame, single story. No disease, \$6.50 per colony. (Midwest). Box W, c/o American Bee Journal.

200 comb honey supers, electric knife, 4-frame power extractor, 3 large honey tanks. Mrs. Lettie Kommer, Andover, Ill.

FOR SALE—80 colonies bees. State inspected. F. E. Hyde, New Canton, Ill.

12,700 red 53MM caps for honey jars, 2,000 gray 53MM caps for honey jars, 1 16-sheet cellulose honey filter with bump pump, perfect condition, one ton per hour capacity, \$795.00. 5 10' roller conveyors, almost new, \$20.00 each. 3 10' solid roller conveyors, \$10.00 each. 5 standards, \$3.00 each. 1 National semi-automatic labeler, capacity 1200 jars per hour, \$395.00. Alexander Company, 819 Reynolds Road, Toledo, Ohio.

HONEY AND BEESWAX WANTED

WANTED—Dark honey, small or large quantities. R. L. Griggs, Hancock, Iowa.

WANTED—White clover honey in 60's. Highest prices paid. Please submit samples. Schultz Honey Farms, Ripon, Wis.

HONEY WANTED—All grades and varieties. Highest cash prices paid. Mail samples. State quantity. HAMILTON & COMPANY, 2513 South Yates Ave., Los Angeles 22, Calif.

WANTED—Water white clover honey, truck or car lots; also light amber. Mail sample and lowest cash price. Write Stoller Honey Farms, Latty, Ohio.

HONEY AND BEESWAX WANTED in trade for supplies or cash. Hodgson Bee Supplies Ltd., 565-13th Ave., New Westminster, B. C., Canada.

WANTED—Extracted honey, white or light amber, in 60's. State price in first letter. Ed. Heldt, 1004 W. Washington St., Bloomington, Illinois.

WRITE FOR SHIPPING TAGS and current quotations on rendered beeswax. Any amount from one pound up bought. If you have 25 pounds or more, save 25% by letting us work it into foundation for you. Walter T. Kelley Co., Clarkson, Kentucky.

CASH PAID for white and amber extracted honey. Send samples and state quantity available. Prairie View Honey Co., 12303 Twelfth St., Detroit 6, Mich.

WANTED—Extra white and light amber honey. Let us ship you the containers. Sell us your honey for CASH on delivery. The Hubbard Apiaries, Manufacturers of Bee Supplies and Comb Foundation, Onsted, Michigan.

HONEY WANTED for cash. All grades. Good used cans for sale or trade for honey. John Tidswell, 2711 North 63 St., Omaha, Nebr.

WE ARE PAYING top prices on beeswax shipped to one of our plants. Sioux Honey Association, Lima, Ohio; Rogers, Texas; Colton, California; Tacoma, Washington, and Sioux City, Iowa.

WANTED—White and amber extracted honey, carloads or less. Write stating best price. Honey Moon Prod. Co., 39 E. Henry St., River Rouge, Mich.

HONEY FOR SALE

WHITE CLOVER HONEY in sixties. Ralph Gamber, 910 State, Lancaster, Pa.

HONEY LABELS

Improved designs, embodying color, balance, simplicity, and distinction. Please send for free samples & prices. **C. W. AEPPLER COMPANY** Oconomowoc, Wisconsin

FLORIDA finest table honeys—limited amount. Orange at \$10.00 per 60-lb. can, saw palmetto at \$8.50 per 60; \$8.00 each for three or more. Mangrove later. All light honey. Prices f.o.b. here. F. H. Nelson, Murdock, Fla.

SUPPLIES

ROSEDALE UNCAPPING PLANES now duty free. Speedy uncapping, easy to handle, adjustable depth of cut. Satisfactory performance fully guaranteed for 1 year. Rosedale Co., 509 Rupertsland Ave., Winnipeg, Canada.

ROBINSON'S "WAVY-WIRED" FOUNDATION—A superior product at a lower price. Also plain foundation. We work your wax, and render combs and cappings. The only foundation plant in the East. Robinson's Wax Works, Rt. 3, Auburn, N. Y.

THE BIGGEST BEE SUPPLY CATALOGUE PUBLISHED (64 pages) free for the asking. Big factory manufacturing a complete line of wooden goods, comb foundation, metal goods, veils and gloves, carloads in stock, daily shipments, save 20%. **WALTER T. KELLEY CO., CLARKSON, KENTUCKY.**

BEE SUPPLIES—Tin packages, 10 sizes glass jars, paper shipping supplies, window cartons and other items. Roscoe F. Wixson, Dundee, N. Y.

Electro Filling Machines, users and distributors. Write Stoller Honey Farms, Latty, Ohio.

WRITE FOR CATALOGUE. Quality bee supplies at factory prices. Prompt shipment. Satisfaction guaranteed. The Hubbard Apiaries, Manufacturers of Beekeepers' Supplies, Onsted, Michigan.

"BEESTROY" destroys colonies of bees in dwelling houses. 1 colony size \$2.00, or 3 for \$5 postpaid. Valley Apiaries, Prophetstown, Ill.

WANTED

CASH for M.D. 11-frame equipment with or without bees up to 3000 boxes. Write price and if you can haul. L. B. Herron, Rt. 2, Sac City, Iowa.

WANTED TO BUY and have for sale—Used extractors of all kinds. John Layman, 702 West 6th St., Bloomington, Ind.

SEEDS AND TREES

HONEY PLANTS our specialty. Catalogue on request. Pellett Gardens, Atlantic, Iowa.

MISCELLANEOUS

RANCH MAGAZINE—Do you find it difficult to secure information about sheep and sheep ranching methods? The **SHEEP AND GOAT RAISER** reaches more shepherds with more information of range sheep than any magazine published. Subscription \$1.00. Hotel Cactus, San Angelo, Texas.

KNOW interesting facts about the bees of India through the **INDIAN BEE JOURNAL**, published in English by the Bhupen Apiaries (Himalayas), Ramgarh, Dist. Nainital, U.P., India, and obtainable from them. Subs. Rs.9/-, or \$15/-, or \$2.25 yearly. Sample copy, post free, Rs.1/8/-, or \$2/6 or 40c (International money order). Payment in mint postage stamps of your country accepted.

SECTION COMB HONEY production steps—\$1.00. Comb Honey Production Glossary—50c. United Industries, Dept. K, Box 449, Madison 1, Wis.

Panel for June —

(Continued from page 218)

for extra room for equipment that cannot be carried in the cab.

This is a list that I think is a must and should be standard at all times:


- 2 folding type veils
- 2 smokers with shields (always carry in metal boxes when not in use, on account of fire)
- 2 10" hive tools
- 2 pair of good gloves
- 2 wool blankets or sleeping bags
- 1 pair of tire chains
- 1 6-ft. log chain
- 1 small shovel or spade
- 1 single-bit axe
- 1 folding saw

(I am a migratory beekeeper engaged in pollination work. Don't think you won't get stuck. You will find the last five indicated items will save your temper and many hours of time.)

- 1 heavy-duty garden hoe for weeds and general cleaning
- 200-ft. of $\frac{5}{8}$ " rope
- 6 carbolic acid boards
- 1 muslin robber cloth, the width and length of the truck bed (The robber cloth, of course, can be wet for covering the honey taken off or for covering wet supers.)
- 5 pounds prepared carbolic acid
- 1 can cyanogas
- 1 small bottle of strychnine sulfate (Be very careful and use extreme caution with these. Carry them preferably in the metal boxes under the truck bed and with a padlock on the door.)

Cyanogas is used for killing occasional diseased colonies as well as laying workers and bees that may be too cross and annoying property owners, or in walls of buildings, etc. Strychnine for skunks: carefully punch a hole in an egg with a match stick. Dip the damp match in strychnine. Punch the match stick and strychnine back in the egg. Place the egg well under the bottom board of the hive.


Many beekeepers are equipping their larger trucks with electric swinging boom type hive loaders. These are fine for the large open smooth fields but for orchard pol-



STARLINE 4-WAY HYBRID QUEENS
BRED IN ISOLATED YARDS

Circular Free	1-24	25-99	100 up
Starline Queens	\$1.40	\$1.30	\$1.20
Italian Queens	.95	.85	.75

Reg. U.S. Pat. Off.
JOHN G. MILLER



723 6th St., Corpus Christi, Texas

ination, as in my case where you have to drive under low-hanging limbs and for close, hard to get at places or operating 25 to 50 colonies in each yard, the small truck is best and this equipment described is quite adequate for all situations.

John W. McFadyen

In regard to colony records for outyards, at the beginning of each season we write the names of our yards on a page of stiff cardboard in their order in the margin and rule it in six or more 1 inch spaces for each yard so that we are provided space for recording a few things for each round.

Yard	1st round May 15-20
Name of Yard	50 alive 4 starved need 6 queens
2nd round May 25-June 10	3rd round June 10-July 5
7 queens need 6 lids and bottoms	Supers on need 7 excluders, 4 hive stands
4th round	Last round
Supers added Excluders on 1 AFB destroyed	59 packed heavily

It only takes a minute to check in after we get out to the highway and our veils removed. This is about all the records we keep. We only mark down items needed for our next trip or for a special round of work.

Are You Losing Beeswax?

We render old combs, cappings, and slumgum for beekeepers. Our steam wax presses get every available ounce of wax out of this material. Send for terms.

DADANT & SONS, Inc.
HAMILTON, ILLINOIS

HARPER'S FAMOUS
High Quality Italian Queens
Sent Air Mail
75c each. 10 or more, 65c each.
CARLUS T. HARPER
New Brockton, Ala.

HONEY WANTED
Cut Comb and Extracted
Advise what you have
T. W. BURLESON & SON
WAXAHACHIE, TEXAS

Girardeau Apiaries
Tifton, Ga.
Shippers of
ITALIAN
PACKAGE BEES and QUEENS

Modern Beekeeping
If you are taking time to read, why not read the best?
Condensed to save you time.
Illustrated to give you pleasure.
1 yr. \$1.50; 2 yrs. \$2.50; 3 yrs. \$3.25
MODERN BEEKEEPING
The Picture Bee Magazine
Clarkson, Kentucky

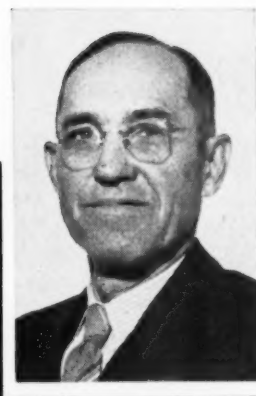
QUEENS — PACKAGE BEES
FOR 1954
Maximum production is most easily assured with superior bees and queens. That's one way we try to help you make money. Superior bees and queens is our motto at all times.
THE VICTOR APIARIES
Uvalde, Texas

- FREE CATALOG -
All The Best and Latest
Garden and Farm Books, Bulletins
A wealth of up-to-the-minute expert advice on how to do wonders on a little land or a thousand acres... wonders with flowers, vegetables, fruits, landscaping, poultry, livestock, woodlands, fishponds, composting, soil improvement, etc. Just send name and address for this fascinating FREE catalog by return mail.
Country Bookstore, Box 5453,
Noroton, Conn. (Est. 1943)

THE AUSTRALASIAN BEEKEEPER
The senior beekeeping journal of the Southern Hemisphere provides a complete cover of all beekeeping topics in one of the world's largest honey producing countries. Published monthly by Pender Bros. Pty. Ltd., Box 20, P.O., Maitland, 3rd N.S.W. Australia. Subscription by Bank Draft or International M.O. 18/- (approx. \$2.15) per year, post free. Sample copy free on request.

CROPS AND MARKETS

M. G. DADANT



The reporters' cards came back too early to give any indication of the probable crop. It seems, however, that the early crop in Florida has perhaps not been as good as a year ago. Through the South conditions likely have been better than a year ago. In Texas, conditions were still developing at the time this was written with good possibilities owing to the fact that rainfall had helped considerably in improving the situation.

Apparently, the orange crop in California is not quite up to a year ago but the unirrigated sections looked much better on account of the recent rainfall, and sage seemed to be yielding well. As far as a definite extracted crop is concerned, however, very little was available outside of Florida and California and conditions were still developing. The California crop undoubtedly was modified somewhat by cool and cloudy weather.

Prospects

As reported previously, prospects in the Pacific Coast section appear better than a year ago due to considerably more moisture which would increase the possibilities of a crop from the unirrigated sections. Apparently there will be sufficient water for irrigation in the Pacific Coast sections. In the intermountain territory reports are conflicting. North and western sections, for instance, the west slope of Colorado extending into Idaho, appear to have more normal snow in the mountains and thus normal irrigation conditions. However, in the San Luis Valley and up the east slope of the Rockies into Wyoming it is apparent that there may be a shortage of water unless more snow and rain are added.

The Plains regions which earlier had been extremely dry now have improved owing to rains but of

course much more rain is needed to replace subsoil moisture which had been largely used up during the bad drought of a previous ten months.

Similar conditions exist in the central and Plains areas with some improvement. In the section extending from Minnesota across Wisconsin and Michigan, into New York and the New England states, and down the east coast apparently enough moisture has been added to ameliorate possibilities of dry weather. Similar conditions apparently exist in Ohio, extending into Pennsylvania, and throughout the entire South as far as the Texas area.

In Texas as mentioned before the crop "hangs in the balance." The western areas, of course, which have not had any rain in many instances for two or three years, will have a hard time developing anything like a crop of honey although moisture has fallen in considerable quantities lately. In the eastern sections of Texas and extending through Arkansas and Oklahoma, the rains have been of great benefit although perhaps the honey producing flora is not up to par.

All in all, it is probable that there is likely to be an improved condition as far as honey and nectar secretion are concerned during June and July whereas last year the condition deteriorated as the dry weather extended throughout the summer.

In all instances bees apparently are in very good shape if they have been kept from starvation. Cool weather, however, in northern areas has tended to hold everything back so that any crop which develops will likely be from one to two weeks late.

In most central areas the number of honey plants available is much under average owing to drought conditions. White Dutch clover, while coming back some, was badly hurt by the drought and even the legumes in the fields felt the effect of the dry season. There is perhaps a tendency to go back to the clovers as a crop rotation owing to the plans of many to raise less corn and start an improvement of their land. However, any results from this would not be noticeable until the 1955 season.

It appears on the surface that prospects are probably as good as a year ago and working forward although at this time last year conditions were better than they are just at present. There is no doubt in the writer's mind that the California and Pacific Coast crop will be ahead of the shorter crop of a year ago, southern areas generally will be better and Florida probably equal, with conditions on the southeast seaboard looking very favorable if the proper weather develops. New England, New York and Pennsylvania and parts of Ohio do look better than a year ago, whereas the central western areas extending into the Plains states show not too great an improvement although moisture has helped considerably.

As a matter of fact, we might summarize by saying that the extent of the crop depends now entirely upon the weather developments. Ideal weather developments for nectar secretion and for allowing the bees to gather nectar will mean a great deal in the final crop.

Honey Wanted—Cars and less than car. Top Prices.
C. W. Aeppler Co., Oconomowoc, Wis.

Queens AIR MAILED \$.55

E. J. Bordelon Apiaries
Phone 2415, Moreauville, La. Box 33

Yellow Italian Queens

By air mail, 1 to 50, 80c ea. Over 50, 70c ea. Live arrival and health certificate guaranteed.

OSCAR ARNOUVILLE
Hamburg, La. Box 203

FLOWER'S QUALITY QUEENS

Bred from hives that made 300 lbs. of honey. Gentle, prolific. All queens guaranteed to be mated and laying. Prompt shipment.

1 to 1000 prepaid air mail — 50c

FLOWERS BEE COMPANY
Jesup, Georgia

PACKAGE Bees and Queens

For Quality and Service

C. F. Koehnen & Sons
Glenn, Calif.

The New B. L. M. WAXMASTER

Electric Capping Melter, featuring thermostatic control, compact design, increased capacity and economical operation at a much reduced price. Sizes and prices to fit your particular needs. Consult us for further information.

B. L. M. Manufacturing Co.
Lisbon, N. Y.

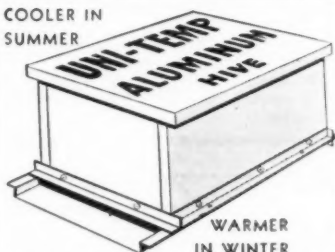
Mountain Breed Italian BEES and QUEENS

Write for Prices.

Nichols Apiaries

Rt. 1, Box 387, Ashland, Ore.

COOLER IN
SUMMER



WARMER
IN WINTER

The most talked about hive in the world.

Ask for Free Catalog
Dealer Inquiries Invited.

The A. H. HALE CO.
HAPEVILLE, GEORGIA

Renew Your Subscription

Get Ready — For Next Year



With Little Italians or Starlines you get heavy buildup, fine winter colonies, heavy spring and summer production. We guarantee safe arrival, health certificate, prompt service; personal supervision.

PRICES—(based on John Davis Italians)

Queens	2-lb. Packages	3-lb. Packages
1-24	\$1.25	\$3.75
25-99	1.20	3.50
100-up	1.15	3.25



Reg. U.S. Pat. Off.

For extra bees, add \$1 for each added lb. Dadant Starline Hybrids add 25c per item.

LITTLE'S APIARIES

Box 122, Shelbyville, Tenn.

Queens

Caucasian

Queens

1 - 24	\$1.00
25 - 49	.90
50 - up	.80

HOWARD WEAVER

Navasota, Texas

Bright Three Banded Italian QUEENS

Our strain is from early imported Italians. Their behavior is more according to pattern than most other races. They are usually gentle, hardy, good workers and not inclined to swarm. Use our queens and you will be in line for all the honey crops and have nice bees to work with.

Prices balance of season:
1 to 50, 80c each; 50 or more, 75c each

TAYLOR APIARIES
Box 249, Luverne, Ala.

Select Italians

QUEENS

Package Bees

M. C. WEST

Route 1, Box 279-A
Winters, California

FOSTER APIARIES

Italian Bees and Queens

Colusa, Calif.

American Rabbit Journal Shows the Way to Success

The leading Rabbit Farming Magazine. Explains the growing meat rabbit industry. Non-fancy. Est. 1931. 3 years \$2.00; 1 year \$1.00; Sample time.

American Rabbit Journal

Dept. S. Warrenton, Missouri

CANADIAN BEE JOURNAL

Canadian beekeepers have much in common with their neighbors in the U.S. If you are interested in bee activities "North of the Border," send us your subscription NOW. Subscription price, \$1.75 per year in U.S.A.

Canadian Bee Journal

Streetsville, Ontario, Canada

J. E. Wing & Sons

41 Years' Continuous Service

ITALIAN PACKAGES BEES AND QUEENS OUR SPECIALTY

Knights Landing, Calif.

WILLIAMS ITALIAN QUEENS

Large Leather-Colored Three-Banded
QUALITY SUPREME

Certificate with each shipment
1-9 Postpaid 85c
10-99 Postpaid 75c
100 up Postpaid 70c

Air Mail Extra

DR. WILLIAMS APIARIES
115 W. Sterling St. Baytown, Texas

Use ABJ Ads — They Pay

BEE SUPPLIES

Since 1886

Brood Frames with Eyelets One-Piece Covers and Bottoms

Send for 1954 Catalogue

WILLIAMS BROS. MFG. CO.

5205 - S.E. 82nd AVE.

PORTLAND 66, ORE.

QUEENS QUEENS

Nice Large Queens
55c each

MITCHELL'S APIARIES
Bunkie, La.

PACKAGE BEES FOR 1954

Truck loads a specialty. Nuclei made to order. Italian queens.

EUGENE WALKER

Route No. 2 — Box 267
Live Oak, Calif. — Phone 5584

3-BANDED ITALIAN QUEENS

1 - 24 \$.80 Prepaid
25 - 9975 Prepaid
100-49970 Prepaid

Health Certificate and Guaranteed
Safe Arrival

TERMS—One-third with order, balance 10 days before shipment.

H. C. BRUNSON

P.O. Box 188, Hampton, S. C., Ph. 4641

WESTERN

Beeswax Headquarters

Certified Beeswax Salvage Plant
Custom Rendering
Bleaching and Refining
Foundation Manufacturing
both plain and wired.

Top Cash Market for
Your Beeswax

MILLER'S HONEY CO.

Colton, Calif. Phone 1722

THOSE DARK

"OLD RELIABLE"

QUEENS

\$1.00 each. \$90.00 for 100.
For Island Hybrids add 10c ea.

WEAVER APIARIES

Navasota, Texas

BEE WORLD

including

Apicultural Abstracts

Science is international. So is **Bee World**, a scientific journal published monthly by the Bee Research Association. Editor Dr. Eva Crane.

Subscription \$3 a year.

Sample copy 10c.

Apicultural Abstracts \$1.75 a yr.

American Bee Journal
Hamilton, Illinois

Agent for U. S. A. and Canada

Renew Your Subscription

Take a Hint from Schaefer

Schaefer says: "Wicht's Starline queens meet our requirements for heavy honey production. They arrive in fine condition and when we need them."

—H. A. Schaefer, Osseo, Wis.



And Increase Your Crop with Wicht's Choice Honey Bees and Queens

Wicht's Three-banded Italians and Dadant's Starline Hybrids

Quality, service, and satisfaction. Light weight cages for packages; young, well fed bees; 25% overweight; health certificate.

— PRICES (based on 3-banded Italians) —

Queens	2-lb. Packages	3-lb. Packages
1-24 \$1.15	..... \$3.75	..... \$4.75
25-99 1.05	..... 3.50	..... 4.50
100-up ..... .95	..... 3.25	..... 4.25

For extra pounds of bees, add \$1.00 per pound. For queenless packages, subtract price of queen. For Dadant's Starline Hybrids, add 25c per item.

WIGHT APIARIES

406 Miller St. — — — — — Hattiesburg, Miss.



GRAY CAUCASIANS

28 years with Caucasians

Quality Bees and Dependable Service

Untested Queens, \$.80 each, any number.

BOLLING BEE CO.

Bolling, Ala.

The MASTER
(formerly Macy)



BE KIND TO YOUR HANDS
FREE 3 Can Grips (for handling 60's)
with each MASTER Electric Uncapping
Knife. Thermostat control and outside
adjustment.

Price, \$14.25

HUTCHISON MFG. CO.

2008 S. Sepulveda Blvd.
Los Angeles 25, Calif.

BETTER BRED QUEENS

Three Banded Italians

The package shipping is over and we have a large Queen Yard ready to supply your needs. All poor queens should be replaced. Now is the time to do it and get the best production. Our "Better Bred Stock" will please you and the price is right.

— 65c each, any quantity. —

CALVERT APIARIES

Calvert, Ala.

Sue Bee Says:

Attention All Beekeepers

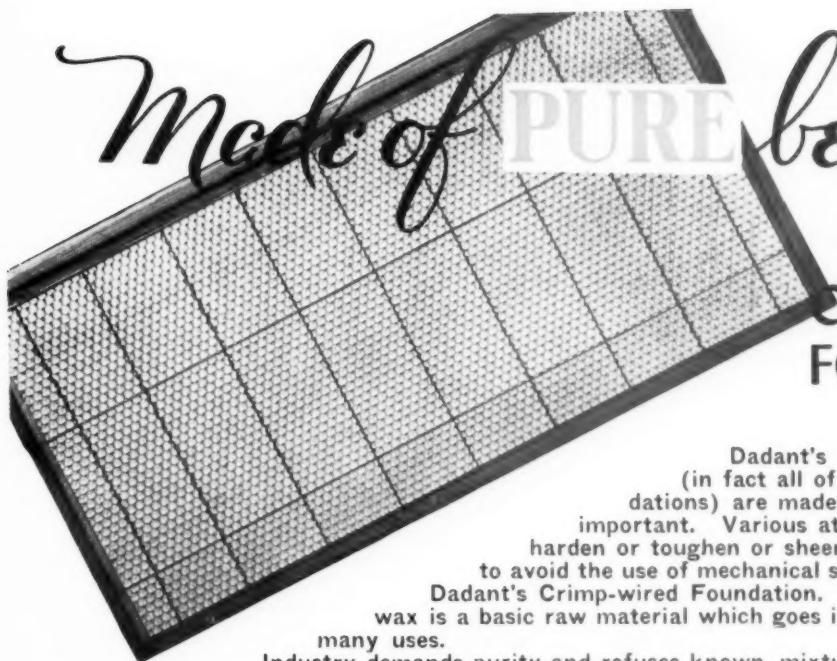
Market your beeswax through one of our five strategically located plants. We are paying top prices.

SIOUX HONEY ASSN.

Lima, Ohio; Rogers, Texas; Colton, California;
Tacoma, Washington and Sioux City, Iowa



"Sue Bee"



Made of **PURE** beeswax

DADANT'S CRIMP-WIRED FOUNDATION

Dadant's Crimp-wired Foundation (in fact all of Dadant's Bee Comb Foundations) are made of pure beeswax. This is important. Various attempts have been made to harden or toughen or sheer up pure beeswax in order to avoid the use of mechanical supports such as are used in Dadant's Crimp-wired Foundation. However, remember beeswax is a basic raw material which goes into many products and has many uses.

Industry demands purity and refuses known mixtures. Remember, too, that the beeswax in comb honey whether in section or in bulk is actually a food because it is a part of the honey. Therefore, any mixing of other waxes with it is absolutely an adulteration. Keep your beeswax safe for food use—worth the highest price on any market.

The Choice Of Expert Beekeepers

In heat or cold the hooks will hold

The crimped wires radiate shoulders of strength

Wires of special steel for greatest support

Accurate embedding so bees use every inch

Made only from pure beeswax

Refined for utmost cleanliness

Brilliant, natural color

Accepted at once by the bees

Cell walls a guide to perfect comb

Milled to exact measures

All cells just alike

Every sheet the same

Carefully and rigidly inspected

Securely and safely wrapped

Gives You LIFETIME COMBS

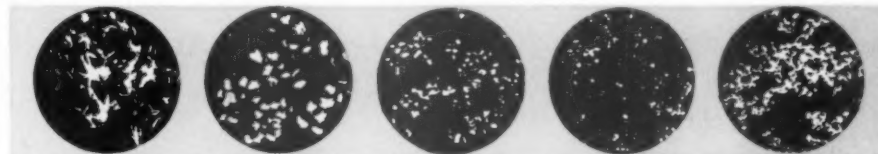


FIG. 1—Pure Beeswax: fleecy flakes, thin bars

FIG. 2— $\frac{1}{2}\%$ carnauba wax: large, clear, bright burrs

FIG. 3— 1% carnauba wax: smaller, bright burrs, tiny stars

FIG. 4— 2% carnauba wax: large number burrs and stars

FIG. 5— 5% carnauba wax: countless tiny brilliant crystals

COMPARATIVE MICROPHOTOS OF Pure Beeswax and four stages of wax adulteration.

USED 32 YEARS -- STILL THE BEST

Since 1921 we have used over 10 tons of Dadant's Crimp-wired Foundation. Of the thousands of combs drawn from this foundation some have had to be replaced on account of damage and disease but no replacement has been necessary because of foundation failure.

I regard Dadant's Crimp-wired Foundation as the best for brood and extracting combs when cost and service are considered. We have found that combs built upon Dadant's Crimp-wired Foundation, in well-wired frames, stand up in high speed extractors and in the fast moving trucks of the migratory beekeeper.

Chas. S. Engle, Beeville, Texas.



Chas. S. Engle
Beeville, Texas



Grandfather Charles Dadant,
typically French, Founder of
the firm of Dadant and Sons



Dadant & Sons, Inc.

Hamilton, Illinois

Lewis-Dadant Branches—Colonie and Montgomery Sts., Albany 1, N. Y.; Stephenson Ave. at 14th St., Lynchburg, Va.; 92 Riverside St., Chillicothe, Ohio; 1010 W. Austin St., Paris, Texas; Rt. 41, S., Hahira, Ga.

Dealers Everywhere

UNIVERSITY MICROFILMS
313 NORTH FIRST STREET
ANN ARBOR MICHIGAN
DEC 50-51-52 -54

A BRIGHT IDEA THAT IS SWEEPING THE COUNTRY IS THE DEMAND FOR ROOT QUALITY EQUIPMENT.



One idea calls for a bee veil that will fit over a hat or a helmet.



The idea of another bee-keeper may differ, for he may prefer the Alexander veil shown here.



Still another may prefer the combination of a veil and a bee suit that is cool and not offensive to bees.

Find Out Why!

See your nearest Root dealer today.

THE A. I. ROOT CO.

Factories at Medina, Ohio — Council Bluffs, Iowa — San Antonio, Texas
Distributors in Principal Cities
DEALERS EVERYWHERE